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ABSTRACT

Technical reports of individual Title I project evaluations conducted during the 1975-76 school year are presented. The volume contains extensive information about each project's rationale, expected outcomes, mode of operation, previous evaluative findings, current implementation, and attainment of its objectives. The Title I evaluations contained here are for the following programs: Affective Education, Benchmark, Bilingual Education, Comprehensive Mathematics Projects, Comprehensive Reading Projects, Computer-Managed Instruction, Counseling Services, Creative Dramatics, Education in World Affairs, English as a Second Language--Readiness, English to Speakers of Other Languages, Follow Through, Institutions for Neglected and Delinquent Children, Learning Centers, Meet the Artist, Motivation, Media Center, Out-of-School Sequenced Science Experiences, School-Community Coordinator, Speech and Hearing, Summer Special Education, Walnut Center, and Young Audiences Intensity Program. (RC)

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TITLE I

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1975-1976

TECHNICAL REPORT

THE SCHOOL DISTRICT OF PHILADELPHIA
PHILADELPHIA, PENNSYLVANIA

MICHAEL P MARCASE, Superintendent

TM006 167

Report #77124

EVALUATION OF TITLE I ESEA
PROJECTS, 1975-1976:
Technical Reports

An annual report issued by the Department of Federal Evaluation Resource Services, evaluating projects funded under Title I of the federal Elementary and Secondary Education Act. (Abstracts of these technical reports comprise Report #7704.)

December 1976

Office of Research and Evaluation
THE SCHOOL DISTRICT OF PHILADELPHIA
Philadelphia, Pennsylvania 19103

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This report was prepared by the Department of Federal Evaluation Resource Services. Assistance in evaluation design, instrument development, data analysis, and editorial matters was provided by the Division of Instructional Research and Development Services, Dr. Edward K. Brown, Director. Members of the project-evaluation teams are named in the Appendix.

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PREFACE

This volume contains the technical reports of individual Title I project evaluations conducted during the 1975-1976 school year. It contains extensive information about each project's rationale, expected outcomes, mode of operation, previous evaluative findings, current implementation, and attainment of its objectives. In addition, the reader will be able to gain insight into the extensive evaluation activities that are intimately linked to each project.

Comprehensive evaluations have revealed that over the past 11 years Philadelphia's Title I projects have enabled administrators and teachers to create favorable learning environments, have reversed some of the historic trends toward drastic pupil underachievement, and have increased parental participation.

Evaluations required under Title I have given administrators an opportunity to discover and choose among alternative methods of improving instruction. It is hoped that the knowledge gained by systematic evaluation will be used to continuously upgrade the quality of services provided to target-area children.

Stephen H. Davidoff

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AFFECTIVE EDUCATION

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Affective Education project (AEP) has two major components: resource services (RS) and the communications network (CN). The RS component offers training in the use of affective curricula and specific affective teaching techniques to Title I parents and school personnel. The CN component has developed and disseminated, through a long-term sequence of workshops with teachers, new curricula, techniques, and approaches that integrate reading, writing, speaking, and listening.

RATIONALE

AEP attempts to meet the needs of teachers, students, and parents through development of new curricula and teaching techniques, creation of more humanistic classroom climates, prevention and removal of psychological blocks to learning, improvement of self-image, and provision of a resource center, in-service courses, and teacher and parent affective training.

The specific problems or needs which affect or otherwise pertain to teachers include (a) difficulty in developing and applying curricular and teaching approaches which prevent or decrease failure patterns and blocks to the learning of communication skills, (b) an expressed sense of isolation in their work, (c) an expressed sense of frustration, (d) an expressed sense of role insecurity, (e) a loss of personal autonomy, (f) difficulty in developing life-relevant curricula and teaching techniques, and (g) a relatively high turnover rate.

The specific problems or needs which affect or pertain to students include (a) poor achievement in school subjects, especially communication skills, as indicated by scores on standardized achievement tests, (b) difficulty in relating course content to their personal lives, (c) low secondary school retention, (d) chronic absence and lateness, (e) negative acting-out behaviors, (f) expressed feelings of a lack of identity and a lack of control over one's personal life and environment, and (g) a dislike for school.

The specific problems or needs which affect or pertain to parents include (a) expressed desire to support and augment their children's learning, especially reading, writing, listening, and speaking, (b) belief that school does not serve the real needs of their children, especially in the upper grades, and (c) expressed feelings of alienation toward "schooling".

EXPECTED OUTCOMES

AEP is designed to provide introductory workshops, in-service courses, and CN training programs for school personnel and parents. The development and dissemination of process-oriented curricula, and the establishment or maintenance of affective target schools or units within target schools are additional anticipated outcomes of the project.

It is anticipated that students who receive most or all of their instruction from teachers who have participated in RS or CN training sessions will maintain or improve reading, writing, speaking, and listening skills, evidence increased school attendance, acquire fewer disciplinary referrals, improve their attitudes toward school and learning, and evidence positive attitudes toward their teachers and peers.

MODE OF OPERATION

The project attempts to improve the personal and academic development of students through concentrated staff development for teachers in (a) techniques and curricula which convert passive lessons to active, experiential lessons, (b) development of curricula in which academic content and skills are taught in ways that capitalize on student interests and concerns, (c) development of strategies for increasing the students' verbal participation in their academic program, (d) use of peer and cross-age tutoring, (e) development of new organizational patterns and teaching techniques which foster personalized learning, and (f) use of curriculum projects and process techniques to remove psychological barriers to the learning of basic skills.

Ongoing support groups and supplementary training for School District personnel are additional operational components of AEP. The provision of support for teachers who have received AEP training involves a variety of approaches such as after-school meetings, classroom observations by peers and affective trainers, outside meetings with consultants, maintenance of a materials resource center, and leadership-training conferences. CN training sessions focus on assisting teachers in creating classroom conditions that help students build positive associations, histories of success, and realistic expectations of self in learning to read and write.

PREVIOUS FINDINGS

During the project's initial years of operation (1968-1970), efforts were concentrated on the development of appropriate curricular materials and training procedures.

In the years 1970-1973, comparisons with non-AEP students suggested that affective students understood themselves better, were able to generate more solutions to problems, were able to use more explicit language in describing their feelings, and had more positive attitudes toward themselves, their teachers, and their classes. Affective students were found to attend school more frequently and to have fewer discipline referrals than a comparison group of students. Participating teachers indicated that they felt they were dealing with disciplinary matters more constructively than before their participation.

Students reported that they felt they had improved in academic achievement. This was substantiated in 1972-1973 when affective students in the middle school showed significantly greater improvement in reading achievement than non-AEP students.

In 1973-1974, affective students did as well as or significantly better than non-affective students in reading comprehension and vocabulary on the California Achievement Tests (CAT). On a semantic differential survey, high school affective students attained significantly higher scores than comparison students regarding their attitudes toward school.

Affective students attended school significantly more often than comparison students at the secondary and intermediate levels, but not at the elementary level. Affective students had significantly fewer disciplinary referrals than comparison students. At the elementary level, 83% of the affective students gained one or more reading-book levels as measured by an informal reading inventory (IRI); 61% gained two or more book levels.

In 1974-1975 the project continued to meet the needs of teachers, students, and parents through programs provided by its RS and CN components. Specifically, it was successful in developing new curricula, disseminating information, providing in-service courses, maintaining a resource center, conducting short-term teacher and parent training, encouraging the frequent use of affective teaching techniques, delivering CN training, resources, and follow-up, improving reading levels of third-, fourth-, and fifth-grade students, and improving reading comprehension at the secondary level. The project had partial success at the secondary level pertaining to student attendance, student attitude toward school, student discipline, and students' ratings of teachers.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of AEP focused on the project's communications network (CN) classrooms. The reading achievement, reading persistence, and writing competence or writing willingness of CN students provided the basis for data collection.

IMPLEMENTATION

During the 1975-1976 year, the project's intended mode of operation was fully implemented. The three divisions of the project, Resource Services, Communications Network, and the School for All Ages provided training and support services throughout the School District.

Resource Services (RS) sponsored general training and information sharing to assist educators in their efforts to improve student's motivation for learning and to facilitate student's acquisition of basic skills. Despite the November freeze on the expenditure of Title I funds for materials and the loss of a library materials assistant, the RS accomplished the following during the current school year:

1. More than fifty Title I schools were served directly.
2. Important relationships with School District offices (e.g., Follow Through) and organizations (Title I Parents Council, Citizens Committee for Public Education, etc.) were maintained.
3. New relationships were established with Ttile I Parochial schools, teacher centers and math resource teachers.
4. New and revised delivery systems were employed.
5. The parent program developed in many directions in content, a group of trainers was trained to deliver services to parents, and new delivery systems were attempted.
6. The teachers from eight schools received a significant number of hours of in-depth training.
7. A group was formed to study the contribution made by the Program to the needs and concerns of Title I children.
8. Two conferences, one featuring Program publications and another limited to various aspects of parenting, were presented.

A total of 2,746 classroom teachers (2,184 who were new to the project), 638 parents, 663 reading teachers, 300 paraprofessionals, 105 students, and 72 administrators were the direct recipients of the project's efforts.

The Communications Network (CN) division worked with teachers to create the conditions in the classroom and in the home that allow children to develop histories of success in learning; positive associations with reading, writing, listening, and speaking; and thought patterns and habits that support reading achievement. During the year, the division conducted approximately 70 hours of workshop and intensive classroom followup for each of two groups of 30 Title I teachers. Each group convened for one all-day workshop and one after-school meeting each month throughout the school year. The CN staff reported the following accomplishments:

1. Teachers applied techniques in their classrooms rapidly.
2. The delivery model of the previous year was replicated efficiently with this group.
3. Specific curricular projects were tried at age levels where they had not been tried previously;
4. In at least five schools, participating teachers conducted faculty meetings around CN techniques and content;
5. Participating teachers attempted to implement in their own classroom, one another's inventive approaches;
6. Participating teachers developed group cohesion frequently using each other as resources; and
7. A high retention rate from year one was realized.

The most notable CN accomplishment was receiving a validation award from the Pennsylvania Diffusion Panel as "an exemplary program that has shown evidence of effectiveness and is recommended to others for adoption or adaptation." The award makes the program eligible for a special $8,000 Title IVC grant designed to facilitate the statewide diffusion process.

The School for All Ages (SFAA) division sponsored two special schools designed to promote three major goals: age integration; development of cooperative learning settings; and appropriate uses of the cooperative, competitive, individualistic, and dependent style of learning. While the latter half of the 1974-1975 school year was viewed as a start-up period, the current school year was considered a time for introducing new formats and structures, emphasizing several important concepts, and providing assistance in programmatic areas.

The division conducted continuous staff development for the 17 SFAA teachers. Approximately 60 hours were provided during the summer dealing with such topics as the adult program, scheduling and grouping problems, interdependence, affective techniques, and boundary setting. An additional 30 hours were provided during the school year covering such topics as cooperation versus competition, the adult program, family group activities, and the four basic learning modes.

ATTAINMENT OF OBJECTIVES

Objective 1: Seventy-five percent of the teachers participating for the first year in the communications network (CN) training program will implement, in their classrooms, one CN project approach to reading and/or writing for a minimum of six weeks during the five-month period January through May, 1976. Verification of the attainment of this objective will be accomplished by (a) on-site monitoring by the evaluator and/or (b) submission of a report by June 1, 1976, by each participating teacher which includes a description of the CN project offered, the schedule, the project lesson plans, and completed Student Feedback Summary forms.

This objective was attained.

Teachers participating in the first-year of CN training were encouraged to implement in their classroom a specific approach to the teaching of reading and/or writing for a minimum of six weeks. By June 1, 1976, these teachers would submit a report to the training team including a description of their CN project, a schedule of its implementation, project lessons plans, and completed student feedback summary forms.

A total of 30 of the 31 first year CN teachers attained the minimum expectations for this objective. Fifteen teachers implemented an approach for six weeks, one for seven weeks, nine for eight weeks, and five for 10 weeks. The following approaches were implemented: 10 teachers, Sharing Pages--8 teachers, Self-Directed Dramatization for Reading Comprehension; 5 teachers, Self-Concept; 2 teachers, the Expressive Writing and Reading Curriculum; 2 teachers, Self-Esteem and Reading; and one teacher each for Communications Skills Through Career Education, Cross-Age Tutoring, and Learning Vocabulary Through Synectics.

Objective 2: On the Gates-MacGinitie Reading Tests, students in Grades 3-6 participating in classrooms taught by teachers who have completed more than 40 hours of first-year CN training and are continuing in second-year CN training will attain Vocabulary and Comprehension scores which are significantly better ($p<.10$) than those attained by a comparison group in non-CN classrooms in their respective schools.

This objective was attained.

The Gates-MacGinitie Reading Tests were administered in May to all pupils in five CN classrooms and five non-CN comparison classrooms. The CN classrooms were selected on the basis of grade level. The project staff specified Grades 3-6 as appropriate for this procedure. Appropriate comparison classes were identified by the principals of the two participating schools. The principals indicated that the pupils in both CN and non-CN classrooms were comparable at the beginning of the school year with respect to reading achievement and other general characteristics. Consequently, the post-only control group design was considered appropriate for data collection and analysis. Standard scores for the vocabulary and comprehension subtests were summed and averaged for the two groups. The differences in mean scores were submitted to a t-test in order to determine significance.

On the vocabulary subtest, 157 CN pupils attained a mean standard score of 52.3 and 159 non-CN pupils had a mean score of 44.9. The difference of 7.4 points was statistically significant beyond the .10 level of significance. On the comprehension subtest, 159 CN pupils attained a mean standard score of 46.4, and 148 non-CN pupils averaged 40.6. The difference of 5.8 points was also significant beyond the .10 level of significance. These results are displayed in Table 1.

Objective 3: On the Reading Persistence Summary, students in Grades 2-4 participating in classrooms taught by teachers who have completed 40 hours of first-year CN training will attain reading-persistence scores which are significantly better ($p<.10$) than those attained by a comparison group in their respective schools.

This objective was attained.

Using a set of books of appropriate reading difficulty the evaluation team conducted a Sustained Silent Reading period in five CN classrooms and five comparison classrooms in the same schools. The five CN classes were selected by the project staff as appropriate for this evaluation procedure. The five comparison classes were again identified by the principals of the participating schools. The principals indicated that the pupils in both CN and non-CN classrooms were comparable at the beginning of the school year with respect to reading achievement and other general characteristics.

During a sustained silent reading period pupils select an appropriate book for reading. No one is permitted to bother anyone else including the teacher. Noise is generally not permitted. The project staff believes that CN pupils would persist in their reading more than non-CN pupils. They defined persistence as continuous eye-contact with the selected book. The sustained silent reading period was chosen by the evaluation team as the most appropriate setting for measuring reading persistence.

After the pupils ahd utilized a three minute period for book selection, the evaluator began data collection. Records of each of the five pupils' persistence in reading their self-selected book were recorded on the Reading Persistence Summary form. The records included a "+" for eye contact with the book or a "0" for non-eye contact. The evaluator entered as many records as possible for each of the five pupils during the first five minutes of the period. Judgements were determined instantly when the evaluator looked at each pupil.

Reading-persistence scores indicate the percentage of time during which students persist in reading during the sustained silent reading period. The scores for the 25 CN and 25 non-CN pupils were summed and averaged. The significance of the difference between these two scores was determined using the procedure specified in Statistics in Psychology and Evaluation (Garret, 1953, pp. 236-237).

The results indicated that CN pupils attained a mean reading-persistence score of 96.8; for the comparison pupils, 69.0. The positive difference of 27.8 points was significant beyond the .10 level.

Objective 4: On a picture stimulus test, students in Grades 2-6 participating in classrooms taught by teachers who have completed 40 hours of first-year CN training and are continuing in second-year CN training will score significantly better (p<.10) in writing competence or writing willingness than a comparison group of pupils in non-CN classrooms.

This objective was attained.

The pupils in five CN classrooms and five comparison classrooms were administered a picture stimulus and directed to write a story about the picture. They were encouraged to use their imagination and to write as extensively as they wished during a fifteen minute time-limit imposed by the evaluation team.

Each of the resulting stories was analyzed for writing willingness and writing competence. Writing willingness was defined as the total number of works included in the story. Writing competence was defined as the total number of verbs, adjectives, adverbs, clauses, and phrases.

Stories were submitted by 124 CN pupils nad 137 comparison pupils. The average number of words in CN stories was 114.1; in the comparison stories 99.7. The positive difference of more than 14 words per story was significant beyond the .10 level. Consequently, it can be concluded that CN pupils are more willing to write than comparison pupils in non-CN classrooms.

An analysis of the writing competence of each pupil was not completed. Problems of definition and categorization were extensive. It was reported to the evaluation team that similar studies (Clark, 1976) concluded that the quality of children's writings was highly correlated with the total number of words written. Consequently, any further analysis of writing competence was suspended. The evaluation team determined that both writing willingness and writing competence were related to the total number of words in each story.

As a result, it was concluded that CN pupils were more willing to write and wrote more competently than non-CN pupils, and the objective was considered fully attained.

SUMMARY AND CONCLUSIONS

The Affective Education project was created to meet the needs of teachers, students, parents, and administrators through the development of new curricula and teaching techniques; the creation of more humanistic and supportive classroom climates; the prevention and removal of psychological blocks to learning; the creation of age-integrated and cooperative learning settings; and provision of a resource center, in-service courses, and teacher and parent affective training.

The project's intended mode of operation was fully implemented. Throughout the school year the three divisions of the project conducted extensive training and support for School District personnel.

Each of the project's stated objectives was fully attained. Pupils in classrooms of teachers trained by AEP achieved significantly higher reading achievement scores (vocabulary and comprehension) than a comparison group of non-project pupils; exhibited a significantly greater willingness to write and generally wrote more competent stories than a comparison group of non-project pupils; and tended to persist in reading during a sustained silent reading period for a significantly greater proportion of time than non-project pupils. It should be emphasized that the attainment of these objectives is a notable accomplishment for a project which deals directly with teachers but has placed its accountability with student outcomes.

It should also be emphasized that the project's Communications Network division was awarded validation by the Pennsylvania Diffusion Panel as "an exemplary program which has evidence of effectiveness and which is recommended to others for adoption of adaptation." The award resulted from an intensive competition with projects conducted in school districts throughout the entire State of Pennsylvania.

TABLE 1

MEAN SCORE ON GATES-MACGINITIE READING TESTS: AFFECTIVE (CN) AND COMPARISON STUDENTS

Group	Vocabulary	Comprehension
Non-CN	44.8	40.6
CN	52.3*	46.4*

*Significantly higher (.10 level) than non-CN mean score.

BENCHMARK

This project serves underachieving pupils in reading and mathematics by providing selected teachers and aides in self-contained classrooms with emphasis placed on basic skills.

RATIONALE

Ongoing analyses of pupil achievement in Grades 4-6 indicate very high percentages of underachieving children. Many of these children are considered to have the potential to attain needed skills in reading and mathematics. Providing an informal instructional setting with 20 children assisted by a teacher and an aide proved to be a viable approach to assisting these children during a six-month period. Personal attention and individualized diagnosis and prescription are the keystones of the project.

EXPECTED OUTCOMES

Pupils are expected to attend school more frequently, to behave better not only in relation to the teacher but also with peers, and to improve their skills in reading and mathematics.

MODE OF OPERATION

This project uses a learning-center model with reduced class size. In each participating school, two teachers were selected. Each of them instructs a minimum of 20 Title-I-eligible pupils, assisted by an aide. This provides a pupil-adult ratio of 10: 1, rather than the usual classroom ratio of more than 30: 1. The instructional program revolves around sequential skill development in reading and mathematics using a diagnostic and prescriptive approach. The instructional support systems are multilevel and utilize paper-pencil, audio, and audiovisual materials. The instructional setting is a self-contained classroom arranged into learning-center areas to provide individual and group instruction.

Training of teachers and aides is supervised by the project administrator and coordinated by three field coordinators. The training deals with assessment, prescription, and management skills.

PREVIOUS FINDINGS

The project was initiated in January 1975. Between January and May, four of the major enabling objectives were fully attained. Attainment of an objective relating to parental involvement could not be determined. However, all five objectives related to pupils' reading and mathematics skills were fully attained. Eighty-four percent of the pupils had an attendance rate of 80% or better.

EVALUATION OF THE CURRENT YEAR

Pretests in reading and mathematics were administered early in the school year to provide baseline data for the evaluation and diagnostic data for the teacher to prescribe remedial work. Posttest scores were compared with the pretest scores to determine gains in achievement. Systematic observation of the instructional process was conducted by the evaluation team.

IMPLEMENTATION

The project's intended mode of operation was fully implemented by January 1975 in the project schools. This year marked the end of the first 1½ years of classroom operation. Following two five-day summer staff-development workshops, each attended by half of the teachers, the program began quite smoothly in September and continued efficiently during the year although several teacher and aide changes were made.

The project served 31 schools with each school having two classes of 20 pupils. Each class was instructed by a Benchmark-trained teacher assisted by a full-time aide. Nineteen observations of 30 minutes or more were made of various Benchmark classes using the observational checklist. During 82% of the observed time teachers and aides worked with groups, individuals, or circulated among the children. During 25% of the observations, the pupils were using the same materials for the lesson; for the other 75% of the time, three or more kinds of materials were used, Language Arts instruction occurred during 59% of the time, mathematics instruction during 19%, and mixed content during 20% of the time. As part of the language-arts program, the 220-word Dolch List was taught to all the pupils. When tested with a sample of these words, 81% of the pupils had gained mastery (90% correct).

Pupils behaved well in their Benchmark classes and were engrossed in their assigned tasks during most of the observations. Eighty-one percent of the pupils had attendance records of 80% or higher.

Manifestations of the in-service training were apparent. Most rooms were colorfully decorated with charts, tables, words, stories, or items constructed by the children. Special-interest units under study varied from American Indians to Our Neighborhood. Most rooms had differentiated areas for mathematics, reading, listening centers, etc. Commercial and homemade games and instructional materials were available and frequently observed in use.

The project was managed by a project director assisted by three field coordinators who acted as communication links, sources of information, and problem solvers. The coordinators were instrumental in getting a teacher-produced bulletin disseminated among the project staff.

ATTAINMENT OF OBJECTIVES

Objective 1: By the end of the school year, 50% of the pupils with 80% attendance will achieve 90% mastery of the word-recognition skills measured by the Phonics Inventory A & B.

This objective was attained.

The Phonics Inventory A&B (Sight and Sound Inventory) was administered to pupils in mid-May and was scored by data processing equipment. Data was collected for 956 pupils who had 80% attendance and who had taken the test. The analysis indicated that 506 pupils (53%) had correctly answered 90% or more of the items. Twenty-nine percent correctly marked 75%-89% of the items, and 18% answered less than 75% correctly.

Results of the phonics testing are shown in Table 1 according to grade level. Sixth- and fifth-graders far exceeded the fourth-graders in achievement of these skills.

Objective 2: By the end of the school year, 70% of the pupils with 80% attendance will gain the reading skills of one book level as measured by teacher scoring of an individual reading inventory.

This objective was attained.

The McCracken Standardized Reading Inventory-Form A was individually administered to pupils by teachers in September. Form B was similarly administered in May. A gain score was determined for each pupil who had a pair of scores. From the total group, 888 pupils had pairs of scores and at least 80% attendance.

Independent, instructional, and frustration levels were determined for each pupil during each administration of the test. In order to determine gains, each book level was assigned a score of five, starting with the pre-primer level to the book 3^2 level. Books 4-6 were assigned a score of 10 each. Thus, a pupil pretested at a Book 2^2 level (25) and posttested at a 3^2 level (35) would have gained a score of 10 (35-25) or two book levels of gain. Two book levels are considered one year of normal achievement. A pupil going from a Book 4 (40) to a Book 5 (50) would also have gained 10 and would also have achieved one year of gain. The instructional reading level was used as the reading measure of word recognition skills (95%-99% correct) and comprehension skills (75%-89% correct).

Reading inventory data showed that 22.6% of the pupils gained one book level and 62.8% gained two book levels or more. The median book level at the beginning of the year for these fourth-, fifth-, and sixth-graders was a Book 2; at the end of the year it was Book 4. Table 2 provides information by grade relating to gains in reading based upon reading inventory levels.

Objective 3: By the end of the school year 60% of the pupils with 80% attendance will gain one level as measured by the Philadelphia Mathematics Evaluation Test.

This objective was attained.

The Philadelphia Mathematics Evaluation Test, consisting of 17 skill levels, was administered to pupils in September and May. The tests were group administered and marked by the teacher or aides.

From the total group, 889 pupils had pairs of mathematics scores and had attended 80% of the time. From this group, only 13.6% made no gains, 34.3% gained one mathematics level, 29.5% gained two levels, and 22.5% gained three levels or more. Due to the fact that Level 9 is considered an enrichment level, there is no Level 9 test. Thus, a gain from Level 8 to 10 is considered a gain of one level. Table 3 illustrates this information.

Objective 4: Parents of 60% of the children enrolled in the project will show concern and interest by (a) visiting the school, (b) volunteering their time, (c) assisting with homework, (d) contacting the teacher, or (e) introducing the pupil to new educational experiences, as measured by teacher records.

This objective was considered attained.

The intent of this objective was to encourage teachers to build and maintain stronger lines of communication with the parents of the children served. This intent was realized.

Forms were distributed to the teachers each month on which they were to record the frequency of parents volunteering in class, parent-classroom contacts, parent meetings, and pupils assistance. These records indicated that during the year, 262 parents had volunteered to help in classrooms, 67 groups of parents had meetings with the teachers, and that 4,495 parent contacts with teachers had been made. Because teachers were asked to tabulate events rather than to record parent's names, exact percentages of parents showing interest or concern could not be accurately determined.

Objective 5: Each Benchmark teacher will be assisted by one aide during all classroom instruction, as indicated by School District records and observations made on site by the evaluation team.

This objective was attained.

Classroom observations and project records indicated that each teacher was assisted by an aide during classroom instruction. However, there were several instances when aides were absent or not available because of special circumstances. A temporary curtailment of the hiring of Title I personnel was an example of a special circumstance that left several classrooms without aides for a brief period of time.

SUMMARY AND CONCLUSIONS

The Benchmark project was implemented at 31 elementary schools with each housing two classes. Each of the project objectives were attained. In reading skills, the median level of Book 2 instructional level was improved to a median level of Book 3; and 53% of the pupils gained mastery of the phonics elements (such as blends and vowels). In mathematics, 29.5% of the group gained two mathematics levels and 22.5 gained three levels or more.

Observations of Benchmark classes indicated an increased frequency of grouped and individual instruction. Pupil interest and involvement were high. Thus, the project effectively synthesized learning center procedures and techniques into a successful self-contained classroom program.

TABLE 1

ACTIVELY PARTICIPATING[1] BENCHMARK PUPILS ATTAINING MASTERY ON PHONICS INVENTORY A & B

Mastery Level Attained (85-Item Test)	Grade 4 (N=186)	Grade 5 (N=408)	Grade 6 (N=362)	Grades 4-6 (N=956)
90%-100% (77-85 Items)	58	196	253	507 (53%)
75%-89% (64-76 Items)	70	136	74	280 (29%)
Below 75% (0-63 Items)	58	76	35	169 (18%)

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[1] At least 80% attendance.

TABLE 2

ACTIVELY PARTICIPATING[1] BENCHMARK PUPILS SHOWING VARIOUS CHANGES IN READING LEVEL[2] ON STANDARD READING INVENTORY

Change Occurring between Pretest and Posttest	Grade 4 (N=163)	Grade 5 (N=380)	Grade 6 (N=345)	Grades 4-6 (N=888)
Gain of 2 Books or More	99	227	232	558 (62.9%)
Gain of 1 Book	39	89	73	201 (22.6%)
Loss or No Change	25	64	40	129 (14.5%)

[1] At least 80% attendance.

[2] Instructional reading level: word recognition 95-99% correct; comprehension 75-89% correct.

TABLE 3

ACTIVELY PARTICIPATING[1] BENCHMARK PUPILS SHOWING VARIOUS CHANGES IN LEVEL ON PHILADELPHIA MATHEMATICS EVALUATION TEST

Change Occurring between Pretest and Posttest[2]	Grade 4 (N=167)	Grade 5 (N=388)	Grade 6 (N=334)	Grades 4-6 (N=889)
Gain of 4 Levels or More	8	23	43	74 (8.3%)
Gain of 3 Levels	10	37	80	127 (14.2%)
Gain of 2 Levels	43	132	82	262 (29.5%)
Gain of 1 Level	71	147	87	305 (34.3)
Loss or No Change	35	49	37	121 (13.6%)

[1] At least 80% attendance.

[2] The Philadelphia Mathematics Evaluation Test has no Level 9. A change from Level 8 to Level 10 is considered a gain of one level. Level 18 is the test's highest designation.

BILINGUAL EDUCATION

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Bilingual Education project is designed to correct the basic academic skill deficiencies of Spanish-speaking children in the nonpublic schools.

RATIONALE

It is the primary assumption of this project that basic skill deficiencies of the Spanish-speaking children in the target-area schools are generally attributable to inadequate development of language skills, especially English.

Other assumptions are (a) that the poor performance of the target-area Spanish-speaking children on standardized achievement tests is attributable to their difficulties with English language skills, (b) that Spanish-speaking children's academic abilities are equal to those of their English-speaking peers, (c) that Spanish-speaking children recently arrived from Puerto Rico require a period of adjustment and orientation to their new environment, and (d) that development of the Spanish-speaking child's competency in Spanish language skills can facilitate development of his English language skills.

The Bilingual Education project provides services to meet the needs of Spanish-speaking children by developing their English and Spanish language skills and by developing basic academic skills.

EXPECTED OUTCOMES

It is expected that through the efforts of the Bilingual Education project, Spanish-speaking pupils will demonstrate increased achievement in basic skill areas.

MODE OF OPERATION

The Bilingual Education project provides bilingual auxiliary teachers who work with Spanish-speaking children in participating schools, and operates the Cariño Center.

Auxiliary teachers are assigned to participating schools to work with the Spanish-speaking pupils. They provide instruction in English and Spanish language skills, mathematics, and/or reading. The auxiliary teachers work with classroom teachers in diagnosing the needs of individual Spanish-speaking children and in developing programs to meet their needs.

The Cariño Center has a staff of five teachers, four aides, a lead teacher, and a part-time consultant. Pupils are bussed daily from participating schools and spend the entire school day at the center, where they receive individualized instruction in mathematics, social studies, English reading, English as a second language, and Spanish. The primary instructional language is Spanish. The Cariño Center helps Spanish-speaking pupils adapt to their new environment by providing them with consultative services and by enlisting the aid and support of their parents and of all available community resources.

The major selection criterion for the center is low academic achievement resulting from the pupil's inability to understand or communicate in English. Pupils are recommended by the staffs of participating schools and then are screened by the Cariño Center staff. Pupils who are newly arrived from Puerto Rico are given first priority for participation. Pupils remain at the Cariño Center until the center's staff feels they can function in the regular school with only the support of an auxiliary teacher.

The center provides staff development for the project's bilingual teachers and for the regular classroom teachers of participating schools. This in-service training familiarizes the regular classroom teachers with the distinctive needs of Spanish-speaking children, provides Spanish language instruction, and provides and maintains resource materials at the center which the teachers may use in developing programs.

PREVIOUS FINDINGS

In the project's initial year (1972-1973) the evaluation was formative and focused on implementation and attainment of the project's enabling objectives. Some difficulties with organization and definition of responsibilities were found.

In the 1973-1974 evaluation, the results of a group of standardized tests in English reading, Spanish reading, English skills, and mathematics indicated that the pupils could read at least as well in English as in Spanish. Comparison of 1973 and 1974 scores from the Bilingual Education Project Student Survey indicated no change in the self-concepts or school-related attitudes of the pupils.

In the 1973-1974 and 1974-1975 evaluations, the project's cognitive objectives for the Cariño Center (improvement of skills in reading and mathematics) were not attained. Objectives for the auxiliary teacher component were attained in the first grade but not in the other grades.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the Bilingual Education project focused on project implementation and pupils' progress in English reading and mathematics.

IMPLEMENTATION

During 1975-1976, the project's intended mode of operation was partially implemented.

The Cariño Center provided an all-day program for pupils with minimal facility in English. However, the bilingual auxiliary teacher component, which instructed Spanish-speaking pupils in the participating schools, was only partially implemented.

The Cariño Center had a staff of five teachers, four aides, a part-time sister consultant, and a lead teacher. The center also housed the project manager and her staff.

Approximately 60 pupils (Grades 4-8) from seven participating schools attended the center daily from 9:00 to 2:30. They were bussed from their home schools. The pupils received instruction in mathematics, English reading, Englsih as a second language, and Spanish. The primary language of instruction was Spanish for mathematics and Spanish, and English for English language subjects. The pupils were grouped into five achievement levels (rather than by grade), and then assigned to smaller groups within each subject to further individualize instruction.

Pupils recommended for attendance at the center by their schools were screened by the project staff. The screening procedure, improved since last year, included assessment of English comprehension, reading level, quality and kind of langauge used, and degree of abstract thinking (in English and Spanish). The current selection criterion was low academic achievement resulting from inability to understand or communicate in English. Pupils were expected to remain at the Cariño Center until, in the judgement of the Cariño Center staff, they could function in the home school. This was determined by comparing the instructional potential of the returnee with that of pupils in the home school. Approximately 20 Cariño Center pupils were expected to return to their schools at the end of the school year, and two are expected to enter high school in September 1976.

In the other major component of the project, bilingual auxiliary teachers were assigned to 6 of the 10 participating schools. However, only three schools had full-day service, two began half-day service in January, and the sixth school's auxiliary position was vacant. The function of the auxiliary teacher in each school was determined jointly by the school and the project staff to meet the needs of the individual situation. The schedule, length of the instructional period, subjects, and number of pupils served varied from school to school. In almost all cases, the instructional language was English. Three teachers provided small-group instruction for short periods in some aspect of the English language and/or mathematics; one maintained a full-day bilingual classroom for first-graders. In a few instances the program provided by the auxiliary teacher was related to the regular classroom program; in most cases it was totally separate.

Overall, project implementation was greatly improved over previous years. There was continued improvement of communication with the feeder schools which resulted in better rapport between the schools and the project. There was intensive supervision of instruction in the center and the schools, coupled with increased curriculum planning and integration. Refinement of the screening procedures and the methods for reporting pupil progress continued during the 1975-1976 school year.

ATTAINMENT OF OBJECTIVES

Objective 1: Cariño Center pupils will increase their instructional reading levels to the extent that, between the September pretest and the May posttest, 75% of them will gain at least one book level on a group informal reading inventory.

This objective was attained.

Informal reading inventories were administered to 60 Cariño Center pupils in September and May. The median pretest book-level score was 2^1; the median posttest book-level score was 3^1. Fifty-five pupils gained (93%) at least one book-level (more than the expected 75%); 47 (78%) gained at least two levels.

Objective 2: During the school year, Cariño Center pupils will increase in mathematics achievement to the extent that 60% of them will demonstrate a month-for-month gain in GE level on the KeyMath Diagnostic Arithmetic Test between pretest and posttest.

This objective was attained.

The time between test administration was 0.6 years (6 months) instead of a full year, therefore the criterion of 0.6 rather than a full year's GE gain was used.

The KeyMath Diagnostic Arithmetic Test was administered in October 1975 and April 1976 to 62 Cariño Center pupils. October GE scores ranged from 2.0 to 6.9, with a mean of 3.1; April GE scores ranged from 2.1 to 7.6, with a mean of 3.9. Of the 62 pupils, 38 (61%) achieved the criterion gain; this exceeded the 60% expectation.

Objective 3: Cariño Center pupils will increase their reading-achievement levels to the extent that, between the September pretest and the May posttest, there will be a significant gain ($p<.05$) in average raw score on each level of the Inter-American Series Tests of Reading.

This objective was partially attained.

The Inter-American Series Tests of Reading (Forms C and D) were administered to Cariño Center pupils in September and May. Level 2 was administered to 24 pupils in Grades 4 and 5 and Level 3 was administered to pupils in Grades 6-8.

The mean pretest raw score on Level 3 was 32; the mean posttest raw score was 34. A Sandler A statistic indicated that the 2-point gain was not statistically significant beyond the .05 level.

Thus, while the pupils in Grades 4 and 5 made significant gains in raw score on the Inter-American Series Tests of Reading (Level 2), the pupils in Grades 6-8 did not make significant gains in raw score on Level 3.

Objective 4: First-grade pupils receiving full-day service from the Bilingual Education auxiliary teachers in the feeder schools will develop their instructional reading levels to the extent that, by May, 60% of them will be reading at the pre-primer level as measured by a group informal reading inventory.

The objective was attained.

In May 1976, informal reading inventories were administered to the 12 first-grade pupils receiving full-day service from the Bilingual Education auxiliary teacher in the feeder school. At that time, the median reading book level was primer. Eleven (92%) of the 12 pupils (more than the expected 60%) attained instructional reading levels of pre-primer or higher.

Objective 5: First-grade pupils receiving full-day service from the Bilingual Education auxiliary teachers in the feeder schools will develop their mathematics achievement to the extent that, by May, 60% of them will be performing at the 1.5 GE level as measured by the KeyMath Diagnostic Arithmetic Test.

The objective was attained.

In May 1976, the KeyMath Diagnostic Arithmetic Test was administered to 12 first-grade pupils who received full-day service from the Bilingual Education auxiliary teacher. At that time , the GE levels for the pupils ranged from 1.7 to 2.0, with a mean of 1.8. Thus, all 12 pupils (more than the expected 60%) attained GE levels of 1.5 or higher.

Objective 6: Pupils receiving remedial service from the Bilingual Education auxiliary teachers in the feeder schools will improve in basic skills to the extent that, by the end of the school year, 80% of them will master 90% of the specific skills for which they were referred, as determined by examination of teacher records.

This objective was not attained.

For each pupil who received remedial service, the auxiliary teacher maintained a progress record. This record stated the skills for which the pupil was referred, the date of entry, the nature of instruction provided, and the degree of remediation. These records were examined in May by the project evaluator, and data were compiled and compared with the stated criterion.

The result of this examination of records indicated that of the 32 pupils in the two schools that received service for the entire school year, 16 (50%) mastered 90% of the specific mathematics skills for which they were referred. This was less than the 80% expectation.

Also, the results of this examination indicated that 14 of the 23 pupils (61%) in the two schools that received service for the entire school year mastered 90% of the specific reading skills for which they were referred. This was less than the 80% expectation.

These figures included neither the 28 pupils who received partial service for only half of the school year, nor the pupils in the sixth school who did not receive service at all during the school year.

SUMMARY AND CONCLUSIONS

The Bilingual Education project was designed to correct Spanish-speaking children's basic skill deficiencies that were attributed to inadequate language facility.

The project's intended mode of operation was partially implemented. The Cariño Center provided an all-day program for pupils with minimal facility in English. However, the bilingual auxiliary teacher component, which instructed Spanish-speaking pupils in the participating schools, was only partially implemented.

Each cognitive objective for the Cariño Center was either fully or partially attained. Ninety-two percent of the pupils (more than the expected 75%) gained at least one book level on a group informal reading inventory, and 61% (more than the expected 60%) made a month-for-month gain in GE level on the KeyMath Diagnostic Arithmetic Test. Statistically significant gains were made on Level 2 of the Inter-American Series Tests of Reading, but not on Level 3.

In the participating schools, 50% of the pupils receiving remedial service from auxiliary teachers mastered 90% of the specific mathematics skills for which they were referred, and 61% of the pupils mastered 90% of the specific reading skills for which they were referred (both less than the expected 80% of pupils). First-grade pupils receiving full-day service from the auxiliary teachers developed their instructional reading levels to the extent that 92% of them (more than the expected 60%) were reading at the pre-primer level and developed their mathematics achievement to the extent that by May, all of them (more than the expected 60%) were performing at the 1.5 GE level as measured by the KeyMath Diagnostic Arithmetic Test.

The project's success can be attributed to continued qualitative improvements in operation and to the impetus provided by the coordinator and lead teacher. Improvements included more refined procedures for selection and return of

Cariño Center pupils, better records of pupil progress, increased communication and greater rapport with participating schools, intensive instructional supervision, and more detailed curriculum planning.

COMPREHENSIVE MATHEMATICS "A": ELEMENTARY MATHEMATICS RESOURCE TEACHER

The Elementary Mathematics Resource Teacher (EMRT) project is designed to improve the computational skills of Title-I-eligible pupils in Grades 2-6.

RATIONALE

The pupils for whom the EMRT project was designed have repeatedly exhibited a deficiency in mathematics as indicated by teacher assessment and by their scores on the California Achievement Tests. The project was created to reduce the skill deficiencies of these pupils by providing a mathematics resource teacher to work with the eligible pupils and teachers of each Title I school. The EMRTs stress the importance of basic mathematical skills, suggest and demonstrate methods of teaching mathematics, delineate what should be taught and in what sequence, and provide instruments for assessing pupil progress.

EXPECTED OUTCOMES

The project is designed to improve the mathematical skills of participating Title-I-eligible pupils. Since many Title I children have been known to have poor attendance records, it is expected that those who attend regularly will show greater achievement than those who are poor attenders. Through the implementation of the project, there should be a reduction in the percentage of pupils obtaining Total Mathematics scores below the 16th percentile on the California Achievement Tests. Pupils also should show gains in their instructional mathematics levels on the Philadelphia Mathematics Evaluation Test.

MODE OF OPERATION

Emphasis of the project is on the individualization of instruction, evaluation of pupil progress, and the continuity of the "levels" approach from Grade 1 through Grade 6. In Grades 2-6, EMRTs provide remedial instruction to groups of selected pupils seriously deficient in mathematics skills. They assist the teachers of Title I pupils with their mathematics instructional program, provide direction to the school's mathematics curriculum, and introduce new materials and visual aids to the classroom teachers to enrich learning situations. They also work with the classroom teachers to develop techniques to improve learning, stimulate interest in mathematics through staff training, help evaluate pupil progress in the school, and supplement teacher efforts by providing remedial instruction to small groups within the classroom.

PREVIOUS FINDINGS

During the project's initial year (1972-1973), a mathematics specialist was assigned to each of the participating schools. As a result of needs recognized during the initial year, emphasis in the 1973-1974 school year was placed on individualization of instruction and continual diagnosis and evaluation of pupil progress. Although the project was generally successful in improving pupils' mathematical skills, the specific objectives were found to be unrealistically high. The 1974-1975 objective of a median growth of two instructional levels was attained.

EVALUATION OF THE CURRENT YEAR

As in previous years, the current year's evaluation of the Elementary Mathematics Resource Teacher (EMRT) project focused on the project's progress toward improving the mathematical skills of participating Title-I-eligible pupils. Project records of individual pupils, observations, and interviews with project teachers were used to determine the level of project implementation. Pretest and posttest scores on the Philadelphia Mathematics Evaluation Test and the California Achievement Tests were used to measure pupil achievement.

IMPLEMENTATION

During 1975-1976, the Elementary Mathematics Resource Teacher (EMRT) project was fully implemented according to its intended mode of operation.

The Division of Mathematics Education provided 12 hours of staff development on four Saturdays during the school year. At these sessions, the EMRTs listened to guest speakers, shared one another's problems and ideas, and learned about teaching techniques and activities for classroom use. EMRTs who were new to the project were also provided with monthly training sessions during their teaching day.

Project records indicated that the 113 EMRTs provided remediation services to approximately 5,900 pupils in Grades 2-6 who were severely deficient in mathematics skills. They also gave assistance to approximately 3,800 Title-I-eligible pupils through demonstration lessons or small-group instruction in the classroom. Remediation was provided during class periods other than those for mathematics, English, or reading.

Using an observational checklist, the evaluator interviewed and observed 24 EMRTs during a remediation or demonstration lesson. The EMRTs reported using 6-10 periods each week for remediation of selected Title-I-eligible pupils; 2-20 periods each week for staff and curriculum development for classroom teachers, principals, and parents; and 1-5 periods each week for diagnosis and prescription for individual pupils, and monitoring and evaluating pupil progress.

In 21 of the 24 schools, the EMRTs offered remediation services to five groups of pupils for two 45-minute periods each week as planned. In two schools, the EMRTs offered remediation services to four groups of pupils; in the other school remediation services were offered to three groups of pupils. In these three schools, remediation services were offered to all pupils who could be scheduled.

Class sizes ranged from 2-24 pupils; generally 15 pupils were offered remediation during a class session. Grouping was based on grade, test results, skill deficiencies, and availability of time in pupil schedules. Pupils from the 1st to 15th percentile on the CAT tended to be mixed in a class. The "levels" approach a sequential skill development program, was used by 19 of the 24 teachers.

In all 19 remediation sessions observed, the entire class worked on the same activity. Emphasis was on the development of computational skills through review and drill with games, worksheets, hands-on activities, paper and pencil activities, and listening activities. Class enrollment ranged from 3-15 pupils. The EMRTs were most often observed lecturing to the group. Small group instruction and individualized instruction were also observed.

In the five demonstration lessons observed, class attendance ranged from 23-29 pupils. The entire class generally worked on the same activity. Emphasis was on drill and review of basic number facts and operations.

ATTAINMENT OF OBJECTIVES

Objective 1: During the school year, participating pupils in Grades 2-6 will improve their mathematics skills to the extent that they will demonstrate on the Philadelphia Mathematics Evaluation Test an average gain of two instructional mathematics levels per 10-month school year.

The objective was attained.

Pupils selected by the EMRTs for remediation sessions were given the Philadelphia Mathematics Evaluation Test (Levels Test) in October 1975 and April 1976. Pupils not selected for remediation had been tested by their regular classroom teachers in June 1975 and were retested by their current teachers in April 1976. Data on attendance at remediation sessions until April were collected for all pupils who had been selected to determine the effects of attendance on pupil achievement. The number of remediation sessions offered ranged from 20-51 sessions.

The records of 1,803 pupils from 20 randomly-chosen schools were examined by the evaluation team. The 1,116 pupils selected to receive remediation services from the EMRTs demonstrated an average gain of 1.2 instructional levels during the 6-month period between pretest and posttest. Extrapolated for a 10-month school year, the average gain of 2.0 levels for a 10-month school year met the criterion stated in the objective. As shown in Table 1, 920 of these pupils had attended at least 75% of their remediation sessions. They demonstrated an average gain of 1.3 levels. The 196 pupils who attended less than 75% of their remediation sessions demonstrated an average gain of 0.8 levels. The 687 pupils who were not invited to remediation sessions demonstrated an average gain of 0.8 levels in the 8-month period between their pretest and posttest. However, examination of pupil progress showed a lack of a relationship between pupil grade level and their achievement on the Levels Test.

In order to determine the consistency of the testing between teachers, the June 1975 scores of pupils who were offered remediation were compared to their levels as determined by the EMRTs in October 1975. Differences were found in the levels of 360 of the 1,116 pupils. In 302 of the cases, the levels were adjusted to a lower one and in 58 cases, the levels were adjusted to a higher one. For the pupils who attended at least 75% of their remediation sessions, the October levels were an average 0.3 level lower than that in the previous June. For the pupils who attended less than 75% of their remediation sessions, the change was a lowering of an average 0.1 level. Because of this finding, there may have been a greater margin of error in the results of pupils not offered remediation than in the results of pupils pretested and posttested by the EMRTs.

In general, Comprehensive Mathematics "A" was successful in improving the basic mathematics skills of the pupils as measured by the Philadelphia Mathematics Evaluation Test. Regular attendance at remediation sessions also appeared to have a positive impact on pupil achievement.

Objective 2: Participating pupils in Grades 2-6 will improve their mathematics skills to the extent that between February 1975 and February 1976, the number of pupils obtaining Total Mathematics scores below the 16th percentile on the California Achievement Tests will be reduced by 3%.

The objective was fully attained.

The records of 1,803 pupils selected to determine the attainment of Objective 1 were also examined for this objective. All 1,803 pupils had scored below the 16th percentile on the February 1975 administration of the CAT Mathematics subtest. Of the 1,116 pupils who had been invited to remediation sessions, 458 scored at or above the 16th percentile on the February 1976 administration of the CAT Mathematics subtest. Of the 687 pupils who had not been invited to remediation sessions, 200 scored at or above the 16th percentile in February 1976.

Attendance at remediation sessions appeared to be related to pupil achievement. As shown in Table 2, 408 (44%) of the 920 pupils who had attended at least 75% of their remediation sessions improved their 1976 scores to at or above the 16th percentile. Of the 196 pupils who had attended less than 75% of their remediation sessions, 50 (26%) scored at or above the 16th percentile in 1976.

Further examination of pupil progress indicated that improvement was related to the grade level of pupils who received remediation services. Except for pupils in Grade 4, improvement was less likely as the pupils grew older.

The pupils who had not been invited to remediation sessions tended to show greater progress than pupils who attended less than 75% of their remediation sessions. Since the EMRTs tended to select pupils most severely deficient, the more able of the Title-I-eligible pupils may not have been offered remediation services in some instances.

In general, pupils made significant improvement on their scores on the Mathematics subtest of the California Achievement Tests. Regular attendance at remediation sessions was also directly related to pupil achievement. Improvement in score was less likely as the pupils grew older.

SUMMARY AND CONCLUSIONS

The Elementary Mathematics Resource Teacher (EMRT) project was established to improve the basic mathematics skills of Title-I-eligible pupils in Grades 2-6 and to provide a resource teacher to work with the teachers of these pupils. The EMRTs provided remediation sessions to selected Title-I-eligible pupils; staff and curriculum development for classroom teachers, principals and parents; diagnosis and prescriptions for individual pupils; and monitoring and evaluation of pupil progress.

The project was implemented in 113 Title I elementary schools and was successful in improving the mathematics skills of Title-I-eligible pupils in Grades 2-6 who had obtained CAT Total Mathematics scores below the 16th percentile in 1975. Among pupils who had been invited to remediation sessions, the number of pupils scoring below the 16th percentile in 1976 was reduced by 41%. In six months, these pupils also demonstrated an average gain of 1.2 instructional levels on the Philadelphia Mathematics Evaluation Tests. Extrapolated for a 10-month school year, the gain of 2.0 instructional levels met the project's goal.

Among pupils not invited to remediation sessions, 29% scored at or above the 16th percentile in 1976. In the eight months between pretest and posttest, an average gain of 0.8 levels was demonstrated on the Levels Test.

On both measures of mathematics skills, pupils who attended at least 75% of their remediation sessions demonstrated more progress than pupils who attended less than 75% of their sessions.

Comprehensive Mathematics "A" was successful in improving the computational skills of Title-I-eligible pupils in Grades 2-6. Remediation sessions had a positive impact on pupil achievement. With the exception of Grade 4 pupils, improvement in CAT scores was less likely as the pupils grew older.

TABLE 1

GAIN IN MATHEMATICS LEVEL BY PUPILS IN COMPREHENSIVE MATHEMATICS "A"

Grade	Pupils Who Attended at Least 75% of Remediation Sessions		Pupils Who Attended Less than 75% of Remediation Sessions		Pupils Not Invited to Remediation Sessions[1]	
	No. of Pupils	Median Gain	No. of Pupils	Median Gain	No. of Pupils	Median Gain
2	125	1.3	26	0.9	50	1.0
3	146	1.4	17	1.0	55	0.6
4	220	1.1	32	0.7	156	0.6
5	283	1.3	72	0.8	218	0.7
6	146	1.5	49	0.7	208	1.2
Total	920	1.3	196	0.8	687	0.8

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[1] Pupils who were invited to remediation sessions were pretested in September/October 1975; pupils who were not offered remediation sessions were pretested in June 1975.

Table 2

IMPROVEMENT IN PERCENTILE RANK ON CAT MATHEMATICS SUBTEST BY PUPILS IN COMPREHENSIVE MATHEMATICS "A"

Grade	Pupils Who Attended At Least 75% of Remediation Sessions		Pupils Who Attended Less than 75% of Remediation Sessions		Pupils Not Invited to Remediation Sessions	
	Scoring below 16th %ile in 1975	Scoring at or above 16th %ile in 1976	Scoring below 16th %ile in 1975	Scoring at or above 16th %ile in 1976	Scoring below 16th %ile in 1975	Scoring at or above 16th %ile in 1976
2	125	85 (68%)	26	17 (65%)	50	33 (66%)
3	146	74 (51%)	17	4 (24%)	55	17 (31%)
4	220	67 (30%)	32	3 (9%)	156	28 (18%)
5	283	131 (46%)	72	18 (25%)	218	62 (28%)
6	146	51 (35%)	49	8 (16%)	208	60 (29%)
Total	920	408 (44%)	196	50 (26%)	687	200 (29%)

COMPREHENSIVE MATHEMATICS "B": JUNIOR HIGH/MIDDLE SCHOOL MATHEMATICS SPECIALIST

The Junior High/Middle School Mathematics Specialist project is designed to improve the computational skills of identified low-achieving pupils in Grades 7-9.

RATIONALE

Pupils attending Title I junior high and middle schools have consistently shown a deficiency in basic mathematics skills similar to those exhibited by Title I elementary school pupils. To improve the skills of these pupils, a program which extends the emphasis and content of the elementary school program was considered essential. In its initial year, the Junior High/Middle School Mathematics Specialist project was designed to remediate pupil deficiencies in basic mathematics skills and to provide a resource to help the teachers of Title I pupils improve their instructional skills in basic mathematics.

EXPECTED OUTCOMES

Participating Title-I-eligible pupils should be able to improve their computational skills in mathematics. Pupils with regular attendance in the tutorial sessions and regular classes should be able to show greater achievement than those with low attendance. The regular classroom teachers of these children also should become more knowledgeable of instructional techniques, materials, and activities which could be used for basic mathematics instruction.

MODE OF OPERATION

Twenty-four junior high/middle school mathematics teachers were selected from the regular staffs of their respective schools to serve as the mathematics specialist teachers. Fifty percent of each specialist's rostered time is spent in remedial instruction of selected Title I pupils in Grades 7-9 in groups of no more than 15. Remediation is scheduled during periods other than those scheduled for regular mathematics, English, or reading classes. Thirty percent of the specialist's time is used to provide staff and curriculum development for the teachers of these pupils, and 20% of the time is used for diagnosing problems and prescribing programs of instruction for individual children.

Prior to implementation of the project in the schools, the Division of Mathematics Education provided 50 hours of intensive staff development to the specialists. Twenty hours of additional staff-development sessions are held during the regular school year. During these sessions, the specialists listen to guest speakers, share their experiences, and learn about methods, techniques, and activities for use in their classrooms. In order to effectively implement the program in the school, the specialists also receive learning kits, materials, filmstrips, tapes, books, and other materials.

PREVIOUS FINDINGS

There were no previous findings because this was the first year of the project.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the Junior High/Middle School Mathematics Specialist project focused on program implementation and pupils' computational skill improvement. Project records, interviews, and observations of the specialists and regular classroom teachers were used to assess program implementation. Staff-development sessions also were observed by evaluators. Pretest and posttest scores were used to determine project pupils' achievement.

IMPLEMENTATION

During 1975-1976, the first year of operation, the project was fully implemented according to plan in 24 Title I junior high and middle schools.

The Division of Mathematics Education provided 50 hours of intensive staff development in September and 20 additional hours on seven Saturdays during the school year. At these sessions, the mathematics specialists listened to guest speakers, shared one another's problems, and learned about teaching techniques and activities for classroom use. In order to help implement the project in the schools, learning kits, tapes, filmstrips, and books were provided to the specialists.

Examination of weekly schedules showed that the specialists had used 50% of their time for remediation, 30% for staff development, and 20% for diagnosing problems and prescribing programs of instruction. Remediation was scheduled during periods other than those for mathematics, English, or reading classes.

Approximately 13,600 pupils in Grades 7-9 were identified for inclusion in the project. Because the number of Title-I-eligible pupils varied among schools (from 172 to 891), the project was implemented in different ways. Using the Observational Checklist, the evaluator interviewed and observed remediation sessions of 13 of the 24 mathematics specialists. Some specialists met their pupils daily; some worked with the pupils once a week; others had two contacts weekly for a four-week period. Some specialists worked first with all the seventh graders and then with the eighth graders; others worked with more than one grade at a time.

In general, the specialists emphasized computational skills in their lessons through the use of games, learning kits, worksheets, and other materials. The "levels" approach, a sequence of mathematics skills, was emphasized in 5 of the 13 schools visited by the evaluator.

The remediation sessions tended to be grouped by grade, with pupils from the 1st percentile to the 15th in a class. In two of the 13 remedial classes, individualized instruction was observed. In three classes, pupils were grouped for instruction; all pupils worked on the same activity in the remaining eight classes. Although 15 pupils were generally invited to each session, class attendance ranged from 5 to 13 pupils.

The evaluator also observed 10 regular mathematics classes of pupils in Grades 7-9 in six schools. The percentage of Title-I-eligible pupils enrolled in these classes ranged from 31% to 100%. Class sizes ranged from 28 to 33 pupils, and attendance ranged from 16 to 32 pupils.

The emphasis appeared to be on the development of computational skills through review and drill; lecturing the entire group was the most common teacher technique observed. In eight of the 10 regular classes, all pupils worked on the same activity; in two classes, different worksheets were given to pupils based on their needs.

ATTAINMENT OF OBJECTIVES

Objective 1: During the school year, eligible pupils (i.e., pupils identified as not scoring above the 15th percentile in Mathematics Computation on the February 1975 California Achievement Tests) in Grades 7-9 who have attended at least 75% of the time will improve their mathematics skills to the extent that they will demonstrate per 10-month school year an average gain of at least two levels on the Philadelphia Mathematics Evaluation Test--Survey Form A, or Sections 2 and 3 of the Philadelphia Mathematics Evaluation Test (below Level 10) administered in the fall and spring.

The objective was fully attained.

By November 1975, the Philadelphia Mathematics Evaluation Test (Survey Form A) was administered to pupils in Grades 7-9 who had no scores or scored below the 16th percentile on the 1975 Mathematics subtest of the California Achievement Tests (CAT). The records of 1,057 pupils were used for a preliminary study. The records of 7,012 pupils posttested with the Survey Form A in April 1976 were used for this report. Attendance at regular mathematics classes and at remediation sessions until April was recorded for each project pupil.

As shown in Table 1, the 5,861 pupils who had attended at least 75% of their regular mathematics classes demonstrated a median gain of one instructional level in the five months between pretest and posttest. Extrapolated for a 10-month school year, the gain of two levels met the criterion stated in the objective.

The 1,181 pupils who had attended less than 75% of their regular mathematics classes demonstrated a median gain of zero between the same pretest and posttest.

Pupils who attended their mathematics classes regularly also tended to attend remediation sessions more frequently. Pupils who did not attend their mathematics classes regularly tended to attend their remediation sessions less frequently. However, percentage of attendance at remediation sessions did not appear to have a differential effect on pupil achievement for both the regular and not regularly attending pupils of mathematics classes.

Objective 2: Between November 1975 and June 1976, each Title I middle or junior high school will have a mathematics specialist teacher who will spend (a) 50% of his/her time with pupils below the 16th percentile in groups of 15 (maximum), (b) 30% of the time on staff and curriculum development in the classroom with the classroom teacher, and (c) 20% of the time on diagnosing problems and prescribing programs of instruction for individual children, as indicated by observations made by the evaluation team using the Observational Checklist and the weekly schedules of the mathematics specialist teachers.

The objective was fully attained.

Examination of the weekly schedules of the 24 mathematics specialists indicated that they had spent 28 rostered periods as specified in the objective.

The 13 mathematics specialists interviewed with the Observational Checklist reported that they had spent at least 14 periods each week providing remediation sessions to pupils in groups of 8-13; eight periods each week on staff and curriculum development for the classroom teachers; and six periods each week diagnosing problems and prescribing programs of instruction for individual pupils.

SUMMARY AND CONCLUSIONS

The Junior High/Middle School Mathematics Specialist project was established to improve the computational skills of Title-I-eligible pupils in Grades 7-9 and to provide a resource to help the teachers of Title I pupils improve their instructional skills in basic mathematics. During 1975-1976, the first year of operation, the project was fully implemented according to its planned mode of operation in all 24 Title I junior high and middle schools.

The mathematics specialists provided remediation sessions to selected Title-I-eligible pupils, staff and curriculum development to the regular mathematics teachers of these pupils, and diagnosis and programs of instruction for individual pupils. Pupils were invited to remediation sessions during regularly scheduled class periods other than those for mathematics, reading, or English.

The project was successful in improving the computational skills of Title-I-eligible pupils. The 5,861 pupils who had attended at least 75% of their regular mathematics classes demonstrated a median gain of one instructional level in five months. Extrapolated for a 10-month school year, the gain of two levels met the project's goal. The 1,151 pupils who had attended less than 75% of their regular mathematics classes demonstrated a median gain of zero during the same period. Although attendance at regular mathematics classes had a differential effect on pupil achievement, no explanation was found for a lack of a relationship between the percentage of attendance at remediation sessions and gains in achievement level.

TABLE 1

GAIN IN MATHEMATICS LEVEL BY PUPILS IN COMPREHENSIVE MATHEMATICS "B"

Percentage of Remediation Sessions Attended	Pupils Who Attended at Least 75% of Regular Math Classes		Pupils Who Attended Less than 75% of Regular Math Classes	
	No. of Pupils	Median Gain	No. of Pupils	Median Gain
75 or more	2,600	1	232	0
Less than 75	959	1	447	0
Not Invited	2,302	1	472	0
Total	5,861	1	1,151	0

COMPREHENSIVE MATHEMATICS "C": SENIOR HIGH SCHOOL MATHEMATICS SPECIALISTS AND SKILL CENTERS

The Senior High School Mathematics Specialists and Skill Centers project is designed to improve the computational skills of Title-I-eligible pupils in Grades 10-12.

RATIONALE

Title I pupils in senior high schools have shown that they lack the basic mathematical skills which are necessary for everyday use and for passing entry-level examinations for employment. The mathematics programs designed for the senior high school were created to overcome this deficiency.

The 10th-grade mathematics specialist program was designed to give pupils enrolled in 10th-grade mathematics classes remedial help to improve their computational skills, and to give the teachers of these pupils ongoing assistance to meet the mathematical skill needs of their pupils. The 11th- and 12th-grade skill-center program was designed to provide individualized help to pupils requiring further remediation after their experience in the 10th-grade program.

EXPECTED OUTCOMES

Participating Title-I-eligible pupils in Grades 10-12 should be able to improve their computational skills in mathematics. Achievement should be greater for pupils who regularly attend their mathematics classes and tutorial sessions than for those with low attendance.

The pupils who are enrolled in the 10th-grade mathematics classes which use the publication "Mathematics for Today" should also gain competence in skills necessary for everyday use and for passing entry-level examinations for employment. Teachers of these pupils should become familiar with methods and activities which could be used to provide drill or individualized instruction for the pupils.

MODE OF OPERATION

Eleven mathematics specialists and eleven skill-center teachers were selected from the teaching staffs of their respective Title I schools. These teachers serve Title I pupils, supplementing the services of each school's regular allotment of mathematics teachers.

The mathematics specialists provide staff development to the teachers of Title I pupils and use 50% of their rostered time in remedial work with Title-I-eligible pupils enrolled in 10th-grade general mathematics classes as needed.

The pupils are invited to attend the remedial sessions in the mathematics laboratory during their class periods other than those scheduled for mathematics, reading, or English. In addition to the services provided by the mathematics specialists, the pupils are taught by their assigned mathematics teachers using "Mathematics for Today" for five periods a week, in classes of no more than 25 pupils.

Skill-center teachers assisted by skill-center aides devote 25 periods per week to remediation for all Title-I-eligible pupils in the 11th and 12th grades who are deficient in computational skills. In groups of no more than 15, pupils are invited to attend remediation sessions in a skill center during their class periods other than those scheduled for reading or English. The skill-center teachers provide diagnosis and prescription for remediation, and maintain the achievement and attendance records of each participating pupil.

The skill-center aide assists the skill-center teacher by marking papers and keeping records, storing and maintaining instructional materials, tutoring or reviewing materials with pupils, or performing clerical or housekeeping tasks during classroom instruction.

Prior to implementation of the project, the Division of Mathematics Education provided 50 hours of intensive staff development over a two-week period to the mathematics specialists, skill-center teachers, and aides. Additional staff-development sessions (at least 20 hours) are held on seven Saturdays during the school year. The mathematics specialists and skill-center teachers also receive learning kits, tapes, filmstrips, books, and equipment such as overhead projectors to implement the program in the schools.

PREVIOUS FINDINGS

There were no previous findings because this was the first year of the project.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the Senior High School Mathematics Specialists and Skill Centers project focused on program implementation and pupils' computational skill improvement. The evaluation team used project records, interviews, and observations of the specialists, skill-center teachers, and regular classroom teachers to determine project implementation. The staff-development sessions were also monitored. Pretest and posttest scores of regularly attending project pupils were used to determine pupil achievement.

IMPLEMENTATION

During 1975-1976, their first year of operation, the 10th-grade mathematics specialist program and the 11th- and 12th-grade skill-center program of the Senior High School Mathematics project were both implemented in 11 Title I high schools. Eleven mathematics specialists and 11 skill-center teachers were selected from the teaching staffs of their respective schools, supplementing the services of each school's regular allotment of mathematics teachers.

The Division of Mathematics Education provided 50 hours of intensive staff development over a two-week period in September to mathematics specialists, skill-center teachers, and skill-center aides. An additional 20 hours of staff development were conducted on seven Saturdays during the school year. At these sessions, the project teachers and aides listened to guest speakers, shared one another's problems and progress, and learned about techniques and activities for classroom use. In order to help implement the project in the schools, learning kits, tapes, filmstrips, books, and equipment such as overhead projectors and calculators were provided to the project teachers. The "Mathematics for Today" workbook was also provided to each Title-I-eligible pupil enrolled in 10th-grade mathematics classes.

Approximately 6,100 nonacademic pupils enrolled in 10th-grade general mathematics classes, were identified for inclusion in the the 10th-grade mathematics specialist program. Approximately 5,600 pupils, who had completed the 10th-grade general mathematics program, were included in the 11th-and 12th-grade skill-center program. These pupils had scored below the 16th percentile or had no score on the 1975 Mathematics Computation Section of the California Achievement Tests (CAT).

Specialists:

Observations and examination of the mathematics specialists' weekly logs indicated full compliance with the planned mode of operation. The mathematics specialists were using 50% of their rostered time for remedial instruction. The remaining time was used to provide staff development to the teachers of these pupils, to diagnose pupil problems, and to prescribe programs of instruction.

Since the number of Title-I-eligible pupils varied widely among schools (from 219 to 1,008), specialists implemented the project in different ways. Each specialist instructed approximately 12 groups of pupils per week. Some met their pupils once a week; others worked with pupils twice a week. The number of remediation sessions offered to pupils ranged from 1-20 sessions during the year.

Using the Observational Checklist, the evaluator interviewed all 11 mathematics specialists and observed 10 specialists during a remediation or demonstration lesson. In six of the seven remediation sessions, the specialists were observed providing individualized instruction and emphasizing the development of basic computational skills. Learning kits, worksheets, and other materials were being used by the pupils. Attendance ranged from one to five pupils, although 15 pupils were generally invited to each remediation session.

In the three demonstration lessons observed, the entire 10th-grade mathematics class worked on the same activity. Attendance ranged from 11 to 13 pupils.

The evaluator also observed 12 regular 10th-grade mathematics classes in six schools. Class sizes ranged from 19 to 30 pupils; at least 90% of these pupils were Title I. Class attendance ranged from five to 17 pupils.

In all 12 classes, the "Mathematics for Today" workbook was used. Lecturing to the entire group was the most commonly observed teacher technique. In 11 of the 12 classes, all pupils worked on the same page of the text. In the other class, pupils appeared to be working at their own pace. Teachers reported providing supplemental instruction in computational skills, because their pupils lacked the skills necessary to use the text.

Skill Center:

Observations and examination of skill-center teachers' weekly logs indicated full compliance with the planned mode of operation. The skill-center teachers devoted 25 periods (at least 40 minutes each) to remedial instruction of 11th- and 12th-grade Title-I-eligible pupils.

Since the number of Title I pupils varied among schools (from 210 to 970), skill-center teachers implemented the project in different ways. Some met their pupils once a week; some worked with pupils twice a week; others met their pupils three times a week for periods of four to six weeks. The number of remediation sessions offered to pupils ranged from 1-35 sessions.

Using the Observational Checklist, the evaluator interviewed and observed all 11 skill-center teachers during a remediation class. All teachers were providing individualized instruction and emphasizing the development of computational skills using learning kits, games, worksheets, and other instructional materials.

Pupils in remediation classes were heterogeneously grouped. Although 15 pupils were generally invited, attendance at the observed remediation sessions ranged from two to nine pupils.

The 10 skill-center aides observed were performing clerical work, filling in records, marking papers, storing or maintaining instructional materials, or working with individual students.

ATTAINMENT OF OBJECTIVES

Objectives 1, 2, and 3 refer to the 10th-grade mathematics specialists program; objectives 4, 5, and 6 refer to the 11th- and 12th-grade skill-center program.

Objective 1: During the school year, participating pupils in tenth-grade mathematics classes who attended at least 70% of the time will improve their mathematics skills to the extent that between the fall and spring testings, the number of pupils scoring below the 16th percentile on the Mathematics Computation section of the California Achievement Tests will be reduced by 2%.

The objective was attained.

By early October, the Mathematics Computation section of the California Achievement Tests (CAT) was administered to the nonacademic pupils in Grades 10-12 in the 11 Title I high schools to determine their initial level of computational skills. The CAT was readministered in February 1976 to determine pupil progress during the four months of program operation.

Attendance at regular mathematics classes and at remediation sessions was recorded for each project pupil. The minimum level of adequate attendance at regular mathematics classes was set at 70%.

Of the pretest and posttest results and attendance information available for 2,248 pupils who had scored below the 16th percentile in October 1975, the records of 1,481 pupils were summarized to determine pupil achievement for this report. The records of 2,821 pupils could not be utilized because of missing test results or attendance information; therefore, the test records of 767 pupils were used for a preliminary study.

As shown in Table 1, 1,159 of the 1,481 pupils attended at least 70% of their regular mathematics classes. Of these 1,159 pupils, 328 scored at or above the 16th percentile in February 1976. The number of regularly attending pupils scoring below the 16th percentile was reduced by 28%. This greatly exceeded the expected reduction. Among the 322 pupils who attended less than 70% of their regular mathematics classes, 29 (9%) scored at or above the 16th percentile in February.

Pupil achievement was also directly related to percentage of attendance at remediation sessions. Approximately one-third of the 859 regular attending pupils also attended at least 70% of their remediation sessions. These pupils demonstrated greater improvement than the regular attending pupils who attended less than 70% of their remediation sessions. The 300 pupils who were not invited to remediation sessions showed the least improvement in computational skills.

Among the irregular attending pupils, 240 were invited to remediation sessions and 82 were not. Improvement was greatest for pupils who attended at least 70% of their remediation sessions, less for pupils who attended less than 70% of their remediation sessions, and poorest for pupils not invited to remediation sessions.

In general, the project was successful in improving the computational skills of pupils. Improvement was greater for pupils who attended at least 70% of their regular mathematics classes than for pupils who did not. Attendance at remediation sessions also had a positive impact on pupil achievement.

Objective 2: During the school year, participating pupils will be rostered to five periods of mathematics instruction per week in a class with a maximum of 25 pupils, as indicated by school records and observations made by the evaluation team using the Observational Checklist.

The objective was partially attained.

The Observational Checklist was used to observe 12 regular mathematics classes in six schools. Teacher records indicated that participating pupils were rostered to five periods of general mathematics instruction each week. In 10 classes, enrollment ranged from 19 to 25 pupils; at least 90% of these pupils were Title I. In the two classes which exceeded 25 pupils, enrollment also included pupils other than Title I pupils. Class attendance ranged from 5 to 17 pupils.

Objective 3: During the school year, each Title I senior high school will be assigned a tenth-grade mathematics specialist teacher, who will provide ongoing staff development for teachers assigned to the school and spend 50% of his/her rostered time tutoring selected pupils in small groups (as the need arises), as indicated by the project coordinator's report and observations made by the evaluation team using the Observational Checklist.

The objective was fully attained.

As stated in the implementation section, each Title I senior high school was assigned a 10th-grade mathematics specialist. Examination of the weekly schedules of the 11 mathematics specialists, as certified by the project coordinator, indicated full compliance with the planned mode of operation.

Using the Observational Checklist, the evaluator interviewed all 11 mathematics specialists and observed 10 mathematics specialists working with pupils. The Mathematics Specialists used 50% of their rostered time to provide approximately 12 periods of remediation each week to small groups of pupils. These pupils were invited to remediation sessions during class periods other than those scheduled for mathematics, reading, or English. The remaining time was used to provide staff development to the teachers of Title-I-eligible pupils, diagnosis of all pupil problems, and programs of instruction for individual pupils.

Objective 4: During the school year, the mathematics skill-center teacher will (a) teach 25 periods of mathematics per week to eligible pupils in classes of 15 (maximum), (b) provide diagnosis and individual prescription for each participating pupil, and (c) maintain achievement and attendance records for each participating pupil. These activities will be monitored and observed by the evaluation team using the Observational Checklist.

The objective was fully attained.

Using the Observational Checklist, the evaluator interviewed and observed all 11 skill-center teachers during a remediation class. All skill-center teachers reported teaching 25 periods of mathematics per week. Fifteen pupils were generally invited during regularly scheduled class periods other than those scheduled for reading or English. Class attendance ranged from two to nine pupils. The skill-center teachers also reported that they were providing diagnosis and individual prescription for participating pupils primarily through the use of learning kits, and maintaining achievement and attendance records for participating pupils.

Objective 5: During the school year, the mathematics skill-center aide will assist the teacher in the room by (a) marking papers and keeping records, (b) storing and maintaining instructional materials, (c) tutoring or reviewing materials with pupils, or (d) performing needed clerical or housekeeping tasks during periods of classroom instruction, as indicated by observations by the evaluation team using the Observational Checklist.

The objective was fully attained.

In 10 skill centers, aides were observed performing clerical work, filling in records, marking papers, storing or maintaining instructional materials, and working with individual students.

Objective 6: During the school year, participating pupils in the 11th and 12th grades who attend the mathematics skill center on 70% of the occasions requested by the center's teacher will improve their mathematics skills to the extent that between the fall and spring testings, the number of pupils scoring below the 16th percentile on the Mathematics Computation section of the California Achievement Tests will be reduced by 2%.

The objective was fully attained.

By early October, the Mathematics Computation section of the California Achievement Tests (CAT) was administered to nonacademic pupils in Grades 11-12 to determine their initial level of computational skills. The CAT was readministered in February 1976 to determine pupil progress.

The records of 2,077 pupils could not be utilized because of missing test results or attendance information. Pretest and posttest results were available for 2,574 pupils. The records of 836 pupils were used for a special report. The records of the remaining 1,738 pupils were examined for this report.

Attendance until April 19 at remediation sessions was recorded for each project pupil. The minimum level of adequate attendance at remediation sessions was set at 70%.

As shown in Table 2, 529 (30%) of the 1,738 pupils attended at least 70% of their remediation sessions. Of these students, 104 scored at or above the 16th percentile in February 1976. The number of pupils scoring below the 16th percentile was reduced by 20%. This greatly exceeded the expected reduction.

Among the 1,209 (70%) pupils who attended less than 70% of their remediation sessions, 134 scored at or above the 16th percentile in 1976. The number of pupils scoring above the 16th percentile was reduced by 11%.

For those pupils who attended, remediation sessions appeared to have a positive impact on comuptational skill improvement.

SUMMARY AND CONCLUSIONS

The Senior High School Mathematics project was established to improve the computational skills of Title-I-eligible pupils in Grades 10-12 and to provide the 10th-grade regular mathematics teachers of these pupils with assistance to meet their pupils' instructional needs. During 1975-1976, the first year of operation, the 10th-grade mathematics specialist program and the 11th- and 12th-grade skill center program were fully implemented in all 11 participating Title I high schools. Each school was assigned a 10th-grade mathematics specialist and an 11th- and 12th-grade skill center teacher.

The mathematics specialists provided assistance to the regular mathematics teachers in the school, diagnosis of pupil problems, programs of instruction, and remediation sessions to selected pupils. In 10 of the 12 tenth-grade general mathematics classes observed, the Title-I-eligible pupils were rostered to classes of not more than 25. Pupils were invited to remediation sessions during regularly scheduled class periods other than mathematics, reading, or English.

The skill-center teachers provided 25 periods of remediation each week to 11th- and 12th-grade Title-I-eligible pupils, provided diagnosis and individual prescriptions for participating pupils, and maintained achievement and attendance records. The skill-center aides were observed performing clerical work, filling in records, marking papers, storing or maintaining instructional materials, and working with individual pupils. Pupils were invited to remediation sessions during regularly scheduled class periods other than reading or English.

Both programs attained their objectives of improving the computational skills of Title-I-eligible pupils. For the 10th-grade mathematics specialist program, attendance at regular mathematics classes and at remediation sessions had a significant impact on pupil achievement. Among pupils who attended at least 70% of their regular mathematics classes, the number of pupils scoring below the 16th percentile was reduced by 28%. Improvement was greatest for pupils who had also attended at least 70% of their remediation sessions, less for pupils who had attended less than 70% of their remediation sessions, and poorest for pupils who had not been invited to remediation sessions. For the 11th- and 12th-grade skill-center program, pupils who attended at least 70% of their remediation sessions showed greater improvement than pupils who attended less than 70% of their remediation sessions. For both programs, attending remediation sessions (during their regularly scheduled classes) had a positive impact on pupil achievement.

TABLE 1

IMPROVEMENT IN PERCENTILE RANK ON CAT COMPUTATION SECTION BY PUPILS IN COMPREHENSIVE MATHEMATICS "C" (10TH-GRADE MATHEMATICS SPECIALISTS)

Percentage of Remediation Sessions Attended	Pupils Who Attended at Least 70% of Regular Math Classes		Pupils Who Attended Less than 70% of Regular Math Classes	
	Scoring below 16th %ile Oct. 1975	Scoring at or above 16th %ile Feb. 1976	Scoring below 16th %ile Oct. 1975	Scoring at or above 16th %ile Feb. 1976
70 or more	287	102 (36%)	19	5 (26%)
Less than 70	572	165 (29%)	221	18 (8%)
Not Invited	300	61 (20%)	82	6 (7%)
Total	1,159	328 (28%)	322	29 (9%)

TABLE 2

IMPROVEMENT IN PERCENTILE RANK ON CAT COMPUTATION SECTION BY PUPILS IN COMPREHENSIVE MATHEMATICS "C" (SKILL CENTERS)

Percentage of Remediation Sessions Attended	Pupils Scoring below 16th %ile in October 1975	Pupils Scoring at or above 16th %ile in February 1976
70 or more	529	104 (20%)
Less than 70	1,209	134 (11%)
Total	1,738	238 (14%)

COMPREHENSIVE MATHEMATICS "D": ACTIVITY-CENTERED MATHEMATICS FOR RETARDED EDUCABLE CHILDREN

The Activity-Centered Mathematics for Retarded Educable Children project is designed to give teachers of retarded educable pupils training and assistance in the teaching of mathematics which emphasizes individualized instruction, hands-on activities, and innovative materials.

RATIONALE

Retarded educable children need not a watered-down version of the mathematics program for average children, but a carefully delineated and sequential program which allows them to work with concrete materials and hands-on activities which are geared to their level of understanding.

The Activity-Centered Mathematics for Retarded Educable Children project was designed to provide materials and training for teachers to enable them to offer a program which would meet their pupils' needs and foster the pupils' mathematics skill development.

EXPECTED OUTCOMES

The pupils of the project teachers should improve their basic mathematics skills. The teachers should become familiar with methods, materials, and activities which they can use in their daily instructional program. They should also develop or maintain a positive attitude toward the teaching of mathematics.

MODE OF OPERATION

During the summer, twenty-three selected regular teachers of retarded educable children receive a one-week staff-development program in the teaching of mathematics. The teachers experience the kind of activities their children will experience during the school year. They become familiar with the materials, hand-on activities, books, and other instructional aids with which they will conduct their program.

During the school year, the teachers receive ongoing assistance and supervision from a special education teacher with a strong background in mathematics. Additional staff-development sessions are held monthly. At these sessions, the project teachers hear guest speakers, share their ideas and experiences, and discuss problems. They also receive further training in methods and activities to individualize instruction and in the use and interpretation of instruments for measuring pupil progress in mathematical skills.

PREVIOUS FINDINGS

During the project's initial year (1972-1973), pupils aged 9-12 in classrooms involved in activities using concrete materials showed significantly greater gains on the Individual Arithmetic Test for Educable Mentally Retarded Children than children in classrooms not using this approach. Teacher attitude toward mathematics remained positive throughout the year.

Between 1973 and 1975, significant pupil progress was shown on the KeyMath Diagnostic Arithmetic Test. Results of the Yoa-Ayrer-Tobin (YAT) Attitude-Toward-Mathematics Scale administered in 1974-1975 showed that project teachers had maintained their positive attitudes toward mathematics during the school year.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the Activity-Centered Mathematics for Retarded Educable Children project focused on pupil progress in mathematics and teacher attitude toward the teaching of mathematics. Project records, teacher interviews, and classroom observations were used to determine program implementation. Staff-development sessions were monitored. Pretest and posttest scores of the children taught by project teachers were used to determine gains in pupil achievement. A pretest-posttest design was also used to determine changes in the attitudes of the teachers toward mathematics instruction.

IMPLEMENTATION

The project's intended mode of operation was fully implemented during the 1975-1976 school year.

In August, 23 classroom teachers of elementary and secondary retarded educable pupils were selected and provided with five days of staff development in teaching techniques, activities, and use of hands-on materials. Eleven teachers had participated in the project in previous years.

Additional three-hour staff development sessions were held on eight Saturdays during the year. At these sessions, the teachers shared their ideas and experiences, listened to guest speakers, received training in methods and activities to individualize instruction, learned to use and interpret instruments for measuring pupil progress, and developed a mathematics curriculum suitable for their retarded educable pupils. In order to implement the project in the schools, participating teachers were provided with materials, learning kits, games, and other instructional aids.

The project coordinator reported making 210 visits to participating teachers. During these visits, 91 observations were made and 75 demonstration lessons were provided to the teachers. The pupil records of each of the 23 teachers were checked twice except in one school. Assistance in test administration was provided on 24 different occasions at 17 schools. Materials were delivered on 65 of the visits.

Of the original 23 teachers selected, 19 remained in the project for the entire year. Three new teachers with additional assistance from the project coordinator continued the program initiated by the original participants. One teacher received the services of the project for half of the school year.

Using the Observational Checklist, the evaluator observed the 19 full-year project participants during mathematics lessons. Class sizes ranged from five to 18 pupils. In general, teachers were providing basic mathematics skill instruction through an activity-oriented teaching approach. In 17 of the classes, the pupils were observed working with teacher-selected instructional materials independently, or with a little assistance from the teacher. Games, worksheets, hands-on activities, workbooks, pencil and paper activities were observed being used.

The instructional emphasis, as reported by the teachers, was on review and drill of basic number facts. Other teacher activities observed included utilization of real-life problem-solving situations, testing, follow-up, and concept development. In 12 of the classes observed, the entire class worked on the same activity. Grouping of pupils was observed in six classes; individual instruction was observed in one class.

A program evaluation form administered in April, 1976 indicated that the 19 project participants were extremely satisfied with the summer staff development and the project coordinator's assistance in teaching mathematics to their pupils. All felt that they had learned different ways to present mathematics to pupils because of the program and that the use of suggested materials had been well received by their pupils. The teachers also felt that their pupils would benefit from an additional year of participation in the program.

ATTAINMENT OF OBJECTIVES

Objective 1: During the school year, pupils will improve their mathematics skills to the extent that they will achieve an average growth of five months in total grade-equivalent (GE) score on the KeyMath Diagnostic Arithmetic Test between pretest and posttest.

The objective was attained.

The KeyMath Diagnostic Arithmetic Test was administered in October and May to 208 pupils taught by 19 project teachers. The records of 74 pupils could not be utilized because of missing test results or transfer out of the project.

The median gain in total Grade Equivalent (GE) score was 0.7 in the seven months between pretest and posttest. This exceeded the expected gain of 0.5 GE. Extrapolated for a 10-month school year, the median gain was 1.0 GE, twice the expected rate of improvement. The pupils aged 5-12 were able to demonstrate more growth than the pupils aged 13-16. For the younger pupils, the change was 0.7 GE; for the older pupils, the change was 0.5 GE.

As shown in Table 1, only five of the 208 pupils demonstrated a loss or "no change" in GE. A larger number of the younger pupils were able to demonstrate or exceed the overall median gain of 0.7 GE than older pupils. Examination of the pretest scores indicated, as expected, that the scores of the older pupils were higher than that of the younger pupils. Improvement may have been more difficult to demonstrate for this older group of pupils.

Objective 2: During the school year, 50% of the teachers will maintain or improve their attitudes toward the teaching of mathematics as measured by the Yoa-Ayrer-Tobin (YAT) Attitude-Toward-Mathematics Scale administered in the summer and spring.

The objective was attained.

The Yoa-Ayrer-Tobin (YAT) Attitude-Toward-Mathematics Scale was administered to project participants at staff development sessions in August 1975 and April 1976. Thirteen of the 19 teachers improved or maintained their positive attitudes toward the teaching of mathematics.

SUMMARY AND CONCLUSIONS

During 1975-1976, the project's intended mode of operation was implemented. Observations indicated that the teachers were providing basic mathematics skills instruction using an activity-oriented teaching approach.

Comprehensive Mathematics "D" attained its objective of improving the basic mathematics skills of retarded educable pupils aged 5 to 16. Pupils demonstrated a median gain of 0.7 in total GE score on the KeyMath Diagnostic Arithmetic Test in the seven months between pretest and posttest. Pupils aged 5-12 were able to show greater gains than pupils aged 13-16. Participating teachers improved or maintained their positive attitudes toward the teaching of mathematics.

TABLE 1

CHANGE IN SCORE IN KEY-MATH DIAGNOSTIC ARITHMETIC TEST BETWEEN OCTOBER 1975 AND MAY 1976 BY PUPILS OF COMPREHENSIVE MATHEMATICS "D" PARTICIPANTS

Change in GE Score	Total No. of Pupils	No. of Pupils Age 5-12	No. of Pupils above Age 12
1.3 or more	19	16	3
0.7 - 1.2	95	78	17
0.1 - 0.6	89	70	19
Loss or No Change	5	2	3
Total	208	166	42

COMPREHENSIVE READING PROJECT

The Comprehensive Reading Project has several components, which are reported consecutively in the following order:

- Aide Services
- Districts 1-7 Reading*
- Improvement of Reading Skills "A" and "B"
- Improvement of Reading Skills "C"
- Individualized Education Center
- Intensive Reading for Secondary Students
- Language Arts Reading Camps
- Operation Individual
- Primary Reading Skills Centers
- Reading Improvement through Teacher Education
- Summer Reading Readiness

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*Separate technical reports on the District Reading Projects are issued annually by the Office of Research and Evaluation's Department of Priority Operations Evaluation Services. Although these projects are not treated in the Title I Technical Reports, they are included in the briefer volume of Title I Abstracts.

AIDE SERVICES

(A Component of the COMPREHENSIVE READING PROJECT)

Aide Services projects have been grouped together because of their common focus on the services of paraprofessionals to Title I pupils and their teachers: ("A") K-3 Aides, ("B") Library Instructional Materials Assistants, and ("C") Parent Aides. The composite project provides aides in classrooms or in instructional materials centers to increase the adult/pupil ratio and to facilitate individualization of instruction in reading and/or mathematics.

RATIONALE

Each of these Aide Services projects provides training and experience to enable aides to assist teachers and to work with groups of Title-I-eligible children as tutors, resource persons, and assistants. Emphasis is placed on improving the participating pupils' basic skills, especially in reading. Aides' participation in the educational process allows teachers to plan instruction around individual and group needs and permits more individualized attention to specific needs of the participating eligible children.

("A") K-3 Aides: Title I pupils score below national norms in reading on standardized tests. These pupils need more individualization of instruction because of learning disabilities.

Teachers with Title I pupils in large classes need supportive assistance if they are to give more attention to individuals and small groups of pupils. Aides provide this supportive assistance by helping the teachers with their individual and small-group instruction and by further relieving them of some routine clerical and housekeeping tasks. The presence of another adult in the classroom not only increases the adult/pupil ratio (promoting greater flexibility in grouping and in differentiation of instruction) but also permits greater social interaction between pupils and adults.

("B") Library Instructional Materials Assistants: Instructional materials centers (IMCs) are resource areas for books, audiovisual equipment, tapes, records, and films. Library instructional materials assistants (LIMAs) provide materials and assistance to Title I children and their teachers in the IMC. The project has been included in the School District's Comprehensive Reading project because IMCs, as depositories of information, have long been recognized as an important tool in the learning process. Through the use by the LIMA of resource materials found in the IMC, the reading program is enhanced for participating Title I pupils because their instruction can be individualized. In bilingual schools, Spanish-speaking LIMAs work with Spanish-speaking Title I children. In special education schools, LIMAs also provide services in IMCs to participating Title I children.

("C") Parent Aides: The introduction of large numbers of trained parent aides into urban classrooms represents a major structural change in American education. The project has profound implications for classroom organization, for pupil learning, for school-community relations, and for the changing role of the teaching profession. With respect to classroom organization, the addition of another adult can allow greater flexibility in grouping procedures and in differentiation of levels of instruction. The expected increase in individualized instruction can improve pupil achievement. The need for increased communication between the community and the school can be satisfied through the direct involvement of parents from the community in the educational program. Parent assistance has had positive effects on both career and role satisfaction of the classroom teacher.

EXPECTED OUTCOMES

("A") K-3 Aides: With aides helping their teachers, children are expected to have more beneficial learning experiences, more personal supervision and reinforcement, and more rapid feedback. The aides can be available to stimulate and encourage the pupils spontaneously or upon request. Because individual and small-group learning and a wider range of activities are more feasible in classrooms with aides than in classrooms where the teacher is working alone, the teacher/aide teams can provide Title I pupils a classroom learning environment suitable to the pupils' varying needs.

Use of aides who live in the school neighborhood is expected to encourage a direct and readily understood line of communication between adults and pupils. The aides can help the children adjust to their school situations and can interpret some aspects of their classroom behavior to the teachers.

("B") Library Instructional Materials Assistants: It is expected that the circulation of IMC materials to Title I pupils will increase because of the LIMAs' efforts. Participating Title-I-eligible pupils' achievement in reading will be promoted by the individual and small-group reinforcement of instruction provided by the LIMAs in the IMCs. LIMAs thus will have an impact upon the schools' Title I reading programs. With Spanish-speaking LIMAs in bilingual schools, Spanish-speaking children will be motivated to utilize the IMC more often and thus improve their skills. With the availability of LIMAs to staff, teachers in special education schools can use the LIMAs' services to provide additional reading experiences for their pupils.

("C") Parent Aides: By increasing the amount of individualized instruction, the teacher can alleviate the pupils' diagnosed reading and mathematics weaknesses.

MODE OF OPERATION

("A") K-3 Aides: Because school size and needs vary, allocations vary from one to five aides per school in the kindergarten and from one to six aides per school in Grades 1-3. Through faculty meetings, workshops, and individual observations, each principal seeks to develop an organization which encourages greater involvement of the teaching team.

The aides help individuals and small groups of Title I children in the classrooms improve their basic reading and mathematics skills by tutoring, supervising instructional games in specific skill areas, conversing with children about their learning experiences in the classroom to increase the children's oral communication, and aiding children in selecting and borrowing books from the classroom library.

The aides follow teacher directions in assisting with audiovisual instruction, making bulletin-board displays, securing instructional materials, preparing and maintaining records and forms, and assisting with outdoor activities.

Provided for kindergarten aides are staff-development sessions, joint workshops for teachers and aides, and a fall citywide orientation program to assist teachers and aides in working together and to upgrade the technical skills of the aides

Under the direction of the training coordinator, monthly two-hour staff-development sessions for aides in Grades 1-3 are conducted from October through May. Released time is provided for the aides to attend these mandatory sessions. Resource personnel to conduct the sessions are provided by the offices of Community Affairs and Affective, English, and Mathematics Education at no cost to the project. In addition, every aide attends the initial program orientation in the fall.

("B") Library Instructional Materials Assistants: LIMAs assist IMC personnel (elementary or secondary librarians or library assistants), participating Title I pupils, and their teachers in the reading program. Spanish-speaking LIMAs are assigned to bilingual schools to assist the librarian or library assistant, and in some special education schools (where IMC staffs are not provided) LIMAs maintain the IMC.

Books and other materials are distributed to teachers for use with their Title-I-eligible pupils. LIMAs keep the IMCs interesting and attractive through the use of bulletin boards and displays. Central staff and district supervisors provide the LIMAs with consultations, on-the-job training, staff-development sessions, and other assistance.

("C") Parent Aides: Initially the parents are trained extensively in the use of individualized instructional materials for reading and mathematics. Later they are assigned to classroom teachers who direct them in working with small groups or individual pupils in skill areas diagnosed as weak.

For reading instruction, the parent aides monitor and direct reading games, supervise the completion of assigned activities, score work sheets, act as models in the reading of stories, help in language-arts drills, and assist in the development of appropriate manipulatives.

For mathematics instruction, the parent aides work with the Individually Prescribed Instruction (IPI) mathematics program under the auspices of Research for Better Schools, Incorporated. Their duties include marking, scoring, graphing, and summarizing pupil progress. In non-IPI mathematics classes, the aides supervise small groups and individual pupils, score papers, and prepare manipulatives and work sheets.

PREVIOUS FINDINGS

("A") K-3 Aides: In the project's early years, it was found that by reducing the number of noninstructional tasks the teachers performed, aides increased the amount of time available for individualized and small-group instruction. Individualization of instruction was facilitated when teachers used aides for instructional tasks but not when the aides performed noninstructional tasks.

In the four years, 1969-1973, the Kindergarten Aides project operated more efficiently than the Classroom Aides project (Grades 1-3) because kindergarten aides had the guidance of a project director and were assigned only to kindergartens. Inconsistent use of classroom aides within the schools and the lack of a designated project director tended to handicap the Classroom Aides project.

In 1973-1974, teachers with aides were observed devoting more time to individual and small-group instruction than teachers without aides. Teachers in Grades K-3 with aides were observed having less frequent discipline incidents in the classroom than teachers without aides.

In 1974-1975, the greatest impact of the K-3 aides was in small-group instruction, with aides in Grades 1-3 assisting teachers primarily in reading. The overall objective of enabling project teachers to better implement individualized and small-group instruction was attained. Aides also handled discipline problems so the teachers could continue lessons without interruptions.

("B") Library Instructional Materials Assistants: In the early years of the IMC project (the original title of the LIMA project), less than half the IMCs that were observed had full-time librarians. Although facilities were attractive and well equipped, only rarely were community volunteers found staffing the IMCs.

In 1973-1974, in addition to librarians, paraprofessional library assistants (LAs) were found staffing IMCs on a full-time basis. These LAs provided teachers and pupils with materials and resources supporting the Comprehensive Reading project. It was ascertained that without the LAs many facilities would have been unable to function.

During 1974-1975, the project hired 56 new paraprofessionals designated as LIMAs to serve in elementary, bilingual, and special education schools. In addition to these new employees, some of the LAs were reclassified as LIMAs. (Others, who remained LAs, were transferred from Title I funding to the School District's operating budget.) The LIMAs made book displays on central themes which led to significantly greater circulation of books on those themes. They provided supportive services for the school's reading program. The objectives of setting up record-level files and providing semiannual lists of recommended books and other resource materials were partially attained.

("C") Parent Aides: Evaluations from 1968 until the current school year have consisted primarily of systematic classroom observations, and questionnaires, rating scales, and interviews involving teachers, principals, and/or aides. Each year, the results were generally positive. In 1968-1969, pupil progress was demonstrated in reading and language arts as a result of aide assistance, and the project was perceived as influencing parent interest in school problems. In 1970-1971, principals' ratings of aides revealed that aides were performing their tasks well and were of great benefit to the instructional program. In 1971-1972, survey responses by principals revealed that aides were performing those tasks which were expected to extend the instructional services of the classroom teachers. In 1972-1973, formal interviews with classroom teachers and their parent aides indicated that paraprofessional assistance was valuable in individualizing instruction. Time sheets completed by the aides supported the interview responses concerning the amount of the time devoted to individual and/or small-group instructional assistance.

In 1973-1974, a series of observations of classes in randomly selected schools receiving parent-aide service revealed that objectives concerning grouping structures and levels of instructional differentiation were attained. However, teachers reported no significant difference between the major classroom problems in their first year with an aide and the problems in their previous year of teaching without an aide.

In 1974-1975, pupils in Grade 2 parent-aide classes maintained their national percentile rank in Composite Basic Skills on the Scholastic Testing Service Educational Development Series while pupils in Grade 3 classes did not. Principals, teachers, and aides continued to express satisfaction with services provided by parent aides, even though service had been reduced in some schools. Moreover, the aides reported that their intensive staff development provided them with useful ideas, techniques, and classroom activities. Reports from project coordinators indicated that aides were enabling teachers to individualize instructional programs.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation covered aide services that were previously identified as four separate projects: Kindergarten Aides, Classroom Aides in Grades 1-3, Instructional Materials Centers, and Parent School Aides.

("A") K-3 Aides: The current year's evaluation focused on the degree to which individual and small-group instruction of participating Title-I-eligible children was enhanced by the provision of aides to classroom teachers. The assessment was based on observations, interviews with teachers, and the examination of weekly activity logs submitted by project aides.

("B") Library Instructional Materials Assistants: The evaluation focused on services provided by the LIMAs to participating Title I pupils and their teachers in elementary, bilingual, secondary, and special education schools. The evaluation team made observations of LIMAs working in the IMC, conducted interviews with LIMAs, and examined LIMAs' monthly logs.

("C") Parent Aides: The evaluation included formal observation of project classrooms to determine the degree to which teachers individualized their instructional program with parent-aide assistance.

IMPLEMENTATION

In 1975-1976, the intended mode of operation for each of the components was considered fully implemented.

("A) K-3 Aides

For 1975-1976, the project reported 90 kindergarten aides and 137 aides in Grades 1-3 serving Titile-I-eligible pupils in the public schools.

In the kindergarten classes, the evaluation team completed 17 observations and interviewed 19 teachers in 14 schools. In Grades 1-3, 29 observations and 34 teacher interviews were conducted in 12 schools. Activity logs for two randomly assigned weeks were collected twice a year from kindergarten aides, and three times a year from aides in Grades 1-3. The aides assisted individuals and small groups of Title I children, mainly in reading and mathematics. Most kindergarten aides worked with one teacher, while most of the other aides worked with two teachers and two classes. Although patterns of aide utilization varied in Grades 1-3, it was common for these aides to work with one teacher in the morning and another in the afternoon. The K-3 aides were observed performing instructional and noninstructional tasks compatible with the project's objectives.

A random sample of teachers with K-3 aides were interviewed by the evaluation team during visits to the schools. All 53 teachers of K-3 aides interviewed found no disadvantages in having an aide. Most teachers stated that the aides were indispensable to them. In fact, teachers having an aide serve them for a portion of the day wanted an aide all day. Forty-eight of the 53 interviewed teachers felt that the aides' most valuable service was that of assistance in working with individual or small groups of children in reading or mathematics. By the reinforcement of work taught by teachers, the K-3 aides enabled teachers to continue instruction without interruption for children who mastered the material presented. Teachers also felt that the aides' attention to individual Title-I-eligible children made a great contribution to the children's academic development.

The kindergarten supervisors provided consultations and staff development for the kindergarten aides. A training coordinator, hired this year, visited the aides in Grades 1-3 at their schools, coordinated the program, and provided staff development.

("B") Library Instructional Materials Assistants (LIMAS)

For 1975-1976, the project reported a total of 82 LIMAs working in the instructional materials centers (IMCs) in elementary, secondary, and special education schools.

During the year, the evaluation team observed LIMAs working in the IMCs in 22 schools: 7 elementary, 3 bilingual, 3 special education, 6 junior high or middle, and 3 high. Interviews with 22 LIMAs were conducted. LIMAs kept weekly summary logs for two months during the year and submitted these for tabulation.

During all 19 observations when children were present, Title-I-eligible children were using the IMC. During 8 of the 19 observations, all children present were Title-I-eligible.

All teachers with a class of Title-I-eligible children accompanied their classes to the IMC. Twelve of the 14 teachers accompanying their class became actively involved with their children and their activities while in the IMC.

LIMAs supported the school's Title I reading programs by providing individual or small-group reinforcement of instruction. LIMAs who were interviewed knew the duties detailed in their new job description, and assisted Title-I-eligible children, their teachers, and either the library assistant or the librarian.

LIMAs assigned to bilingual schools acted as interpreters for Spanish-speaking children with Spanish surnames, their parents, and the library staff.

Book displays to motivate children to read books were found to vary considerably in their attractiveness.

The project director and district library supervisors provided staff development when visiting the IMC and at several meetings held during the year.

("C") Parent Aides

For 1975-1976, the project's intended mode of operation was considered fully implemented. A total of 220 aide positions were authorized. Two hundred three (92%) experienced aides returned at the beginning of the year to assume these positions. Seven aides resigned; 21 new aides were hired throughout the year. Generally, each aide was assigned to no more than two teachers.

The year-long training program for all aides included one half-day session each month during September through April (January excluded). During the month of May individual school inservice experiences were conducted by the three project coordinators. In all, a total of 37 training experiences were planned, organized, and/or conducted by the project coordinators. As in previous years these half-day training sessions covering a wide range of topics appeared to be well planned and efficiently conducted with many "hands-on" experiences for all participants.

It should be noted that in a survey conducted by the Coordinator of Non-Public School Projects the Parent Aide project received the highest ratings from the principals of eligible schools as the most effective Title I project.

ATTAINMENT OF OBJECTIVES

Objective 1: Efficient use of the aides' time will be maintained by the teachers so that aides will spend (a) at least 60% of their time in supervising and/or working with individuals (one or two children) or small groups (from three to seven children), (b) not more than 20% of their time in clerical tasks (e.g., grading, record keeping), and (c) not more than 20% of their time in such tasks as class trips, operation of A/V equipment, housekeeping, and other activities. This will be verified by evaluators' inspection of Weekly Activity Logs to be maintained by aides, locally developed teacher questionnaires, and observations made by members of the evaluation team using the Observational Checklist.

This objective was fully attained.

Data from weekly activity logs kept by the K-3 aides were tabulated. The percentage of time K-3 aides spent in various activities is summarized in Table 1. Information was gathered from the logs of 68 kindergarten aides and 128 aides in Grades 1-3.

Overall, K-3 aides spent an average of 64% of their time in supervising and/or tutoring individuals or small groups of children; 19% of their time in clerical duties; and 17% of their time in activities as class trips, operation of audiovisual equipment, and housekeeping tasks.

Task variations were noted between kindergarten aides and aides in Grades 1-3. Kindergarten aides spent more time doing housekeeping tasks than aides in Grades 1-3. During visits kindergarten aides were observed performing housekeeping during 31% of the time; aides in Grades 1-3 performed this task 11% of the time. The learning activities during the daily kindergarten work period (such as painting, pasting, and cutting) required the aide to perform housekeeping tasks intermittently during the individual or small group activities. Aides in Grades 1-3 spend more time performing instructional tasks than the kindergarten aides.

Objective 2: Aides in Grades 1-3 will be assigned to work with not more than three classes each week as indicated by the Weekly Activity Logs and observations by the evaluation team using the Observational Checklist.

This objective was considered attained.

Information was attained from data tabulated and summarized from weekly activity logs. Verification of records was made during teacher interviews.

Ninety-seven percent of these aides were assigned to work with not more than three classes; 3% served four classes or more. Action was taken by the project staff to correct these cases.

Objective 3: All LIMAs will motivate pupils to borrow books from the IMC by setting up interesting book displays on selected themes at least four times a year. The LIMAs will publicize these themes to the school staff working with ESEA Title I children. The effectiveness of this motivation and publicity will be determined by comparing the circulation of a sample of books to ESEA Title I children during 20 school days prior to the display and 20 school days after the books are put on display.

This objective was partially attained.

Data were obtained from book circulation records kept by the LIMAs and observations during visits. Not all LIMAs had set up four book displays on selected themes. However, most of the LIMAs had established book displays on the two themes, "Harvest of Good Books" and "The Bicentennial." A t test indicated that significantly more books circulated among Title-I-eligible children during the 20 school days after the books were put on display than during the comparable 20 school days preceding the displays.

Objective 4: All LIMAs will prepare and provide, upon request, supplementary materials (e.g., filmstrips, collections of books, magazines, newspapers) for teachers of ESEA Title I children. This will be verified by records maintained by the LIMAs.

This objective was fully attained.

The determination was made from the examination of 830 weekly summary logs of 75 LIMAs. LIMAs prepared and provided teachers of Title-I-eligible children with supplementary materials whenever they were requested.

Objective 5: All LIMAs will provide personal attention to individuals and groups of ESEA Title I children. Examples are telling or reading stories, providing assistance in the location of desired materials, and demonstrating the use of the card catalog. This will be verified by records maintained by the LIMAs and by observations conducted by the evaluation team using an observational checklist.

This objective was fully attained.

Information was obtained from data collected from 830 weekly summary logs of 75 LIMAs and observations. LIMAs did provide personal attention to individuals and groups of Title-I-eligible children while they were using the card catalog, locating materials on shelves, or reading books. LIMAs were also observed reading stories to children.

Objective 6: Elementary LIMAs will establish and maintain reading-level files for books received during the 1975-1976 school year. This will be verified by records maintained by the LIMAs and by observations conducted by the evaluation team using an observational checklist.

This objective was attained.

Verification was made from weekly summary logs maintained by 75 LIMAs and by observations during visits. Elementary LIMAs had established reading-level files in all of the 13 elementary schools visited by the evaluation team. Their logs showed a portion of their weekly time devoted to maintaining the reading-level files of books of interest to children.

Objective 7: Elementary LIMAs will establish and maintain a Spanish reading-materials area in the IMC where 25% of the enrolled children have Spanish surnames. This will be verified by records maintained by the LIMAs and by observations conducted by the evaluation team using an observational checklist.

This objective was attained.

Weekly summary logs of elementary LIMAs in IMCs located in bilingual schools were examined and observations were made during visits. Spanish reading materials were placed in specific areas in the IMCs by the LIMAs assigned to work in bilingual schools. The LIMAs devoted time each week to maintenance of these areas and assisted Spanish-speaking pupils and their parents in book selection.

Objective 8: Secondary LIMAs will have available and distribute lists of materials and books appropriate for use by ESEA Title I pupils. This will be verified by records maintained by the LIMAs.

This objective was fully attained.

Weekly summary logs examined by the evaluation team showed that the secondary LIMAs did make available books and lists of materials for teachers' use with their Title I pupils.

Objective 9: The presence of parent aides in classrooms will facilitate small-group and individualized instruction of Title-I-eligible pupils in basic academic skill areas (reading, language arts, mathematics) as determined by systematic observations of parent-aide classrooms by the evaluation team using the Learning Environment Checklist. The following will be expected: (a) with respect to classroom grouping arrangements, pupils will be working in small groups (2-10 pupils) and/or as individuals during at least 60% of observed time; (b) with respect to the level of instructional differentiation, in less than 10% of observed time will all pupils be working on the same assignment; (c) with respect to the role of the teacher, in at least 30% of observed time teachers will be actively guiding and/or assisting groups or individuals; (d) with respect to the activities of the aides, at least 20% of observed time will be devoted to supervising and/or assisting individual children.

This objective was fully attained.

The design specified a series of observations of classes in randomly selected schools receiving parent aide service. An observational instrument, the Learning Environment Checklist, was developed to provide the most accurate description of all characteristics of the observed classroom. The following six major characteristics were included for observation: organization (individuals to whole class); level of instructional differentiation (individuals on different assignments to the total class on the same assignment); role of the teacher (availability for assistance upon request to directing or lecturing the entire class); parent aide activities (unstructured time to supervising a large group); pupil activities (individual activity, group activity, waiting for assistance, etc.); and pupil attitudes (appears enthusiastic to appears bored). The 40-minutes observation time was divided into five-minute intervals. During each interval, judgments for each of the six characteristics were recorded. A composite of the eight sets of records was used to describe the environment for that 40 minute observation time. A summary for all observations was then used to describe any environment having the services of a parent school aide.

Six schools receiving parent aide service were randomly selected for observation. In all, 30 classes were observed. The observations revealed the following: (a) pupils were working in small groups (2-10 pupils) and/or as individuals during 91% of observed time; (b) all pupils were working on the same assignment during only 8% of observed time; (c) teachers were actively guiding and/or assisting groups or individuals during 32% of observed time; and (d) the parent aides were supervising and/or assisting individual children when they provided service in the classroom (as opposed to another location in the building) during 33% of observed time. In each case the minimum expectations were attained.

SUMMARY AND CONCLUSIONS

The Aide Services Project was designed to use paraprofessionals to serve Title-I-eligible pupils and their teachers by facilitating individualization of instruction in reading and/or mathematics.

All three components of the Aide Services project--K-3 Aides, Library Instructional Materials Assistants (LIMAs), and Parent Aides--were fully implemented in accordance with theier planned modes of operation. Eight of the nine objectives for the composite project were attained. Partially attained was the one objective in which not all the LIMAs set up the expected four book displays during the school year. All aides received in-service training from project supervisors or coordinators.

Observations by evaluators, and interview and survey responses from teachers and principals indicated that aides greatly supported the instructional process by facilitating individualized and small-group instruction in basic skills. Interviews with public-school teachers indicated high levels of respect for and reliance on the services provided by K-3 aides. In a survey conducted by the coordinator of nonpublic school projects, the Parent Aides component received the hignest ratings from principals as the most effective Title I project.

The classroom aides in both public and nonpublic schools indicated that more than 60% of their time was devoted to instructional activities with individuals or small groups of children.

The aides and the services they provided in this composite project were found to be an invaluable resource to teachers and their classes due to their presence, excellent training, and ability to work with children.

TABLE 1

PERCENTAGE OF TIME K-3 AIDES SPENT IN VARIOUS ACTIVITIES AS REPORTED IN ADIES' WEEKLY ACTIVITY LOGS

Activity	Grades Served by Aides		
	K-3 (788 Logs)	K (232 Logs)	1-3 (556 Logs)
Service to Small Groups or Individual Pupils (Objective: At least 60%)	64%	60%	66%
Clerical Tasks (Objective: Not More than 20%)	19%	16%	19%
Housekeeping Tasks, Class Trips, A-V Equipment, etc. (Objective: Not More than 20%)	17%	24%	15%

IMPROVEMENT OF READING SKILLS "A" AND "B"
(A Component of the COMPREHENSIVE READING PROJECT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Individualized instruction for seriously deficient readers is provided through the use of prescribed materials, ("A") in a Reading Skills Center assisted by aides, or ("B") using a teacher shared by a public school and a nonpublic school.

RATIONALE

Citywide testing over the past few years has indicated that children in Grades 4-8 have serious deficiencies in reading comprehension and vocabulary skills. Diagnosis and correction of these children's serious reading deficiencies prior to their entry into secondary schools are critical to the future cognitive attainment of these children. Since these children have a history of low success in conventional classrooms, specialized assistance is required.

EXPECTED OUTCOMES

It is expected that pupils attending three or more periods per week will show measurable improvement in phonics, decoding, vocabulary, and comprehension skills.

MODE OF OPERATION

Underachievers in Grades 3-7 are identified by classroom teachers and through the use of tests. When they are selected to enter the project, pupils are given an informal reading inventory and the Botel Phonics Inventory to facilitate diagnosis and placement.

Pupils are excused from their regular classrooms to go to the reading specialist in the Skills Center. Instructional periods vary from less than 45 minutes to more than an hour. The pupils work individually or in small groups on individually prescribed assignments. Multimedia equipment and multilevel materials are utilized to accommodate the various needs, interests, and skill levels.

Each full-time Reading Skills Center is supplied with many reading books, kits, and workbooks. Listening carrels are equipped with earphones and outlets, small phonographs, and cassette recorders. Pupils are cycled from one experience to another as needed. Full-time aides are assigned to assist the reading teacher in the preparation for instruction, in the follow-up of each pupil's progress, in record keeping, and in reviewing work with pupils.

The Reading Skills Center teachers often provide consultation with teachers and staff-development sessions where topics include individualized instruction techniques and materials to correct pupils' reading problems. Centers are also used as models for visiting teachers.

Program "B" differs from Program "A" in several ways. The shared-time reading specialists work in both public and nonpublic schools, but do not have the services of aides. They use available facilities in their schools rather than a specially equipped site, and provide only informal consultation with teachers.

PREVIOUS FINDINGS

Since the project's initiation in 1966, pupils have shown improvement in comprehension, word-attack, and phonics skills. In 1970-1971, standardized tests indicated that project pupils' low scores in vocabulary were reversed after two years, and low scores in comprehension were reversed after one year. During the following years pupils continued to improve their basic reading skills in phonics and comprehension.

EVALUATION OF THE CURRENT YEAR

The current evaluation of Improvement of Reading Skills "A" and "B" involved observations, interviews, and analysis of test results. Score gains from pretest to posttest in phonics and reading comprehension were compared with project criteria.

IMPLEMENTATION

In 1975-1976, the project was fully implemented according to the intended mode of operation.

Pupils were provided with a remedial reading program using individualized diagnosis and prescriptions. The project was geared primarily for those pupils with the most severe reading problems in grades 3-7. Fifteen of the 19 sites were observed by an evaluation team using an observational checklist. Of all the children served, approximately half received the more intensive program of three or more instructional periods each week.

The 13 "A" Reading Centers provided an individualized program to approximately 1,400 public school pupils. The full-time reading teacher was assisted by a full-time aide and a part-time aide. Instructional time ranged from 45 to 60 minutes.

Three pairs of "B" Shared Time Centers were located in three public and three nonpublic schools. Each pair was served by one reading teacher who worked alone with groups of children. Of the 300 pupils, approximately half came from each sector. This project was primarily a remedial program which emphasized individual and small-group procedures.

Observations indicated that teachers spent most of their time teaching individual or groups of children, or circulating among pupils. Aides were observed spending the most of their time assisting individual or groups of children. During most lessons, more than three kinds or levels of materials were observed in use by the children.

The project reading teachers submitted 1,673 records of pupils in Grades 3-7. Of these, 6% were in Grade 3, 6% in Grade 4, 32% in Grade 5, 25% in Grade 6, and only 1% in Grade 7.

ATTAINMENT OF OBJECTIVES

Objective 1: Pupils participating in this project three or more times a week during the school year will improve their vocabulary/comprehension skills as indicated by fall and spring administration of informal reading inventories (IRIs). A minimum of 75% of the group will gain one book level and 55% will gain two book levels.

This objective was fully attained.

Pupils enrolled in the project were pretested in September and posttested in May by the teachers using informal reading inventories. Only those 1,271 pupils who attended at least three times a week and had both pairs of scores were included. Of these pupils, 61% gained two or more book levels based on the instructional reading level criterion of the informal reading inventory, and 27% of the pupils gained one book level. Only 12% of the participating pupils showed no gain. Table 1 shows the gains made by pupils based on the number of years they received service.

Objective 2: Pupils participating in this project three or more times a week during the school year will improve their decoding skills to the extent of a 20% gain in the mean score on the 64-item Botel Phonics Inventory administered in September and May.

This objective was attained.

A 64-item phonics inventory was administered to project pupils in September and May. Of the total group of pupils, 1,310 had both pretest and posttest scores and had attended at least three times a week. The pretest mean was 40.86 items and the posttest mean was 50.62 items across the project. Thus a 24% mean gain was achieved by project pupils. When the data was analyzed in terms of years of service received, pupils being served for the first time were found to have had the greatest need and made the largest gains. When the data was reviewed in terms of a 90% mastery level, slightly more than 31% of the pupils attained mastery.

SUMMARY AND CONCLUSIONS

The Improvement of Reading Skills "A" and "B" project was instituted to improve the reading skills of pupils with severe problems. Through the years, this project continues to be a model for emulation.

The teachers assessed individual needs and problems, prescribed remedial treatments, and provided the material and supervision needed for instruction.

The evaluation team visited the centers, made observations, and analyzed the pupil data collected by the teachers. The pupils attained and exceeded the project objectives.

Twenty-seven percent of the pupils were able to gain the reading skills of one book level based upon informal reading inventories, and 61% gained two book levels. More than 3 of every 10 pupils were able to gain a 90% mastery of phonics skills. Project pupils also made a 24% gain in their phonics skills overall.

The project continued to provide an effective remediation and instructional program to large numbers of pupils with severe reading difficulties.

TABLE 1

SUMMARY OF PUPIL PROGRESS IN READING "A" AND "B" PROJECT FROM PRETEST TO POSTTEST

Change in IRI Score	Percentage of Participating Pupils			
	1 year of Service (N=931)	2nd-year Pupils (N=232)	3rd-year Pupils (N=108)	Three Groups (N=1,271
Gain of 2 Books or More	61.8%	56.0%	67.6%	61.2%
Gain of 1 Book	26.0%	30.2%	25.9%	26.8%
Loss or No Change	12.2%	13.8%	6.5%	12.0%

IMPROVEMENT OF READING SKILLS "C"
(A Component of the COMPREHENSIVE READING PROJECT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Part "C" of the Improvement of Reading Skills project provides reading teachers who give part-time remedial instruction to pupils with reading difficulties.

RATIONALE

The participating target-area pupils have failed to master the basic reading skills, and are reading below grade level. The project is based upon the assumption that supplementary services can ameliorate low achievement levels resulting from reading difficulties. Services are provided to improve the reading comprehension and word-attack skills of the participating pupils.

EXPECTED OUTCOMES

Through participation in the project, the pupils should improve their reading comprehension and their word-attack skills.

MODE OF OPERATION

Pupils in Grades 3-8 who have failed to master basic reading skills are admitted to the project on the basis of recommendation by their classroom teachers and screening by the reading teacher.

Each remedial reading lesson lasts approximately 45 to 60 minutes. The pupils engage in at least three activities which emphasize individual skill development.

Widely varied multilevel, multimodal materials are utilized for optimal development of specific skills. The pupils work in small groups; the reading teacher serves as a resource person. The schedules of the reading teachers are arranged to fit the programs of their respective schools. Each day, a reading teacher meets with three or four instructional groups, each consisting of 8 to 12 pupils.

PREVIOUS FINDINGS

The project has been successful in helping many children who had reading difficulties to make gains in comprehension and word-attack skills.

In previous years, the differences between pretest and posttest scores on informal reading inventories indicated that 66% of the pupils participating in the project improved their instructional reading levels at or above the rate specified in the objectives (two book levels per school year). In addition, substantial increases from fall to spring in the percentage of pupils attaining mastery on a phonics inventory indicated that the project consistently met its objective of increasing pupils' decoding skills.

EVALUATION OF THE CURRENT YEAR

This year's evaluation of Improvement of Reading Skills "C" focused on (a) the degree to which the participating pupils demonstrated increased reading-achievement levels, as indicated by differences between pretest and posttest scores on a group informal reading inventory, and (b) the degree to which the pupils improved their decoding skills, as indicated by scores on a project-specific phonics inventory.

IMPLEMENTATION

The project's intended mode of operation was fully implemented in 1975-1976.

A project questionnaire provided information on pupil selection, emphasis of instruction, class organization, student needs, and communication with classroom teachers. Classroom observations by the evaluation team provided information on classroom organization and teacher behavior. Observations and responses to the questionnaire indicated that there was no substantial change from previous years.

In all schools, pupils received supplemental reading instruction three to four hours per week. In 28 of the centers, pupils received instruction three days a week, in six centers pupils met four days a week, and in one center pupils met five days a week. (One school had two centers.) Classes generally were 45-60 minutes in length. Class size usually ranged from 8-12 pupils. Pupils were assigned to the reading class by grade level. In schools where there were two or more classes per grade, pupils were assigned to the project by reading level within grade.

Thirty 45-minute observations were conducted by the evaluators. Each observation was divided into nine five-minute intervals. The Improvement of Reading Skills "C" Observational Checklist was used to systematically describe the characteristics of the instructional system employed in each reading classroom. In 59% of the intervals, the classes were organized as whole groups with all pupils working on the same task. The teacher actively assisted groups of pupils 65% of the time and 29% of the time presented information by lecturing the whole class. Widely varied materials were utilized for specific skill development. During a lesson, pupils usually engaged in at least three different activities.

Questionnaire responses by teachers indicated that pupils were selected for participation in the project on the basis of classroom-teacher recommendation, low IRI and phonics-inventory scores, previous participation in the project, and recommendations of school personnel other than the reading teacher. Pupils selected for the project were usually two or more years below grade level. The two areas where most project pupils had reading difficulties were comprehension and word-attack skills; these were the areas where pupils received the most instruction.

Communication between project and classroom teachers usually consisted of discussions when a pupil entered or left the project and at other times, if necessary, and a written report to the classroom teacher. Both project and classroom teachers participated in diagnosing pupil deficiencies.

ATTAINMENT OF OBJECTIVES

Objective 1: Project pupils will increase their reading-achievement levels to the extent that 90% of them gain at least one book level and 60% gain two or more book levels between September pretest and May posttest on a group informal reading inventory.

The objective was attained. Ninety-four percent of the pupils gained at least one book level; 80% gained at least two levels.

Informal reading inventories (IRIs) were administered in September and May. The median pretest and posttest book-level scores in each grade are reported in Table 1. The number of pupils in each grade who made the specified gains between pretest and posttest are shown in Table 2.

Further analysis of the IRI book levels of 131 project pupils who have been in the project since September 1974 indicated that 107 (82%) of them gained at least four book levels over the last two years. Seventy-six of the 131 (58%) pupils gained at least five book levels over the two years.

Objective 2: Project pupils will improve their decoding skills to the extent that there is an increase of 20 points in the percentage of pupils attaining an 80% mastery score (68 or more correct out of 85 items) on a project-specific phonics inventory between September pretest and May posttest.

The objective was attained.

In September and May, 85-item project-specific phonics inventories were administered to the pupils. Results for each grade are shown in Table 3.

On the pretest, 37% of the pupils attained the specified 80% mastery score; on the posttest, 79% did so. The increase of 42 percentage points surpassed the 20 point expectation.

SUMMARY AND CONCLUSIONS

The Improvement of Reading Skills "C" project, which provided part-time remedial reading instruction, was found to be fully implemented. It appeared to be well organized and to be making efficient use of its resources.

Both project objectives were attained. In reading achievement, 94% of the pupils (more than the expected 90%) gained at least one book level, and 80% (more than the expected 60%) gained at least two book levels in a year's time. The criterion for phonics mastery (a 20-point gain in the percentage of pupils attaining mastery) also was exceeded; there was a gain of 42 percentage points.

The project has been successful in helping a large number of children who had reading difficulties.

TABLE 1

IMPROVEMENT OF READING SKILLS "C":
IRI BOOK-LEVEL SCORES

Grade	No. of Pupils	Pretest Median	Posttest Median	Book Levels Gained
2	8	Book R	Book P	2
3	206	Book 1	Book 2^2	2
4	358	Book 2^2	Book 3^2	2
5	236	Book 3^1	Book 5^1	4
6	217	Book 3^2	Book 6^1	5
7	123	Book 4^1	Book 6^1	4

TABLE 2

IMPROVEMENT OF READING SKILLS "C":
SUMMARY OF GAINS ON IRI
SEPTEMBER TO MAY

Grade	No. of Pupils	Pupils Making No Gain		Pupil Gaining One Level		Pupils Gaining Two or More Levels	
		N	%	N	%	N	%
2	8	2	25	0	0	6	75
3	206	16	8	38	19	152	73
4	358	16	5	55	18	287	77
5	236	4	2	40	17	192	81
6	217	22	10	15	15	180	75
7	123	8	7	11	9	104	84
Total	1,148	68	6	159	14	921	80

TABLE 3

IMPROVEMENT OF READING SKILLS "C": PERCENTAGE OF PUPILS ATTAINING MASTERY ON PHONICS INVENTORY

Grade	No. of Pupils	September Pretest	May Posttest	Increase in Percentage
2	10	0%	0%	0
3	186	2	48	46
4	325	21	85	64
5	232	52	90	38
6	229	60	85	25
7	126	62	82	20
Total	1,108	37%	79%	42

INDIVIDUALIZED EDUCATION CENTER
(A Component of the COMPREHENSIVE READING PROJECT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Individualized Education Center (IEC) provides a compensatory program for pupils in St. Mary's Interparochial School, focusing on development of language arts and mathematics skills and using selected individualized instructional practices.

RATIONALE

Pupils attending the IEC have varied ethnic and social-class backgrounds: there are affluent whites from the St. Mary's parish, poverty-stricken blacks from the Our Lady of the Blessed Sacrament parish, and pupils from Spanish-speaking families. The result is an experiment in voluntary integration of children bussed from different neighborhoods within the city.

The complex makeup of the pupil population requires the project's staff members to commit themselves to a philosophy and program of education which encourages the development of each pupil's self-esteem and appreciation of the worth of others. The staff attempts to develop each child's sense of social justice and responsibility by promoting self-directed learning experiences intended to correct the individual pupil's basic skill weaknesses.

EXPECTED OUTCOMES

Through individualization of instructional practices, IEC aims for the improvement of pupil performance in basic skills, and the development of positive attitudes toward self and toward school.

MODE OF OPERATION

The center is organized to provide an optimal degree of individualized instruction in language arts and mathematics, using a wide variety of multimedia and multilevel instructional materials. Integral parts of the instructional plan are diagnosis of each pupil's learning weaknesses and prescription of specific activities designed to remediate them. The measurement of pupil progress is individualized by setting attainable goals for each pupil, by avoiding peer comparisons, and by using the Continuous Progress Program and the Fountain Valley Teacher Support System provided by the Archdiocese of Philadelphia. The end-of-year report is a detailed narrative which describes each pupil's strengths and weaknesses.

PREVIOUS FINDINGS

During its initial years (1968-1970) the project was evaluated by the coordinator of nonpublic school Title I projects. The evaluations were formative and revealed that the enabling objectives had been attained.

Beginning with the 1970-1971 school year, the evaluation focused on the degree of individualization of instructional practices. Attempts to individualize instruction through innovative class structure and teaching methods were observed. During subsequent years (1971-1972, 1972-1973), continued attempts to individualize instruction were hindered by a number of factors: (a) a high staff turnover rate, (b) a change of principals, (c) fluctuation in pupil enrollment, (d) some scheduling difficulties, and (e) a limited budget for instructional materials. During these years, instructional differentiation was maintained through use of multiple-group settings.

From 1970 through June 1973, the average IEC pupil improved sufficiently within each year to maintain his/her standing in relation to national norms on the Iowa Tests of Basic Skills (ITBS). Between June 1973 and March 1974, average gains in grade-equivalent score ranged from one month to 15 months for the Arithmetic Skills, Reading Comprehension, and Vocabulary subtests. Excluding the three-month summer recess, this period included roughly six instructional months. However, the norms provided by the publisher of the test for these testing periods (and based on the questionable inference of cognitive growth during the summer recess) indicated that actual gains failed, in 14 of 20 instances, to maintain the pupils' relative standing with the norming population.

In 1973-1974 and 1974-1975, systematic observations of IEC classrooms revealed that in all observed classes the teachers attempted to provide individualized instruction through effective grouping procedures, teacher-directed and pupil-selected individual activities, and the judicious use of a wide variety of available multimedia equipment and instructional materials. IEC pupils generally reported positive attitudes toward their school experiences and a positive self-concept.

In Spring 1975 the California Achievement Tests (CAT) replaced the ITBS. Using the results of a comparability study conducted by the Office of Research and Evaluation, the evaluation team converted the 1974 ITBS mean scores to "predicted CAT scores" which were further converted to CAT national percentile ranks. A comparison of these 1974 results with the 1975 CAT results revealed that average gains in grade-equivalent score were sufficient to maintain or improve national percentile ranks in 7 of 10 instances.

EVALUATION OF THE CURRENT YEAR

The IEC evaluation during the current year focused upon the level of instructional differentiation and the development of the pupils' basic academic skills.

IMPLEMENTATION

In 1975-1976 the project's intended mode of operation was fully implemented. Only two of the eight member teaching staff returned for the current school year. In the past, such a significant loss of teachers delayed the successful implementation of individualized instructional practices until later in the school year when the new staff had familiarized themselves with the philosophy and practices of the project. However, the introduction of six new, but relatively experienced, teachers did not detract from the implementation of individualized instruction early in the school year.

Grades 1-4 again functioned as self-contained classes and Grades 5-8 were departmentalized classes. Instructional materials and multimedia equipment were available in each classroom to provide appropriate learning experiences for all pupils according to their instructional levels. The Individualized Education Center (IEC) continued to receive the services of a full-time reading teacher and benefits from other Title I projects (Parent School Aides, Multimedia Center, Education in World Affairs, Counseling Services). All eight teachers received a minimum of two daily hours of aide assistance during reading, language-arts, and mathematics classes. Some teachers received as much as five hours of aide assistance a day.

The project implemented an extensive tutoring program involving students from a local college and pupils from the upper grades within the school. Moreover, some IEC pupils were eligible for special reading services provided by a special state funded agency.

Finally, IEC teachers were observed using the Fountain Vally Teacher Support System and the Continuous Progress Program of the Archdiocese of Philadelphia. Both systems appeared to aid the staff in individualizing instruction.

ATTAINMENT OF OBJECTIVES

Objective 1: Project pupils will develop basic skills in reading during the 1975-1976 school year to the extent evidenced by at least maintaining their national percentile ranks from the previous school year on the Reading Vocabulary and Reading Comprehension sections of the California Achievement Tests.

This objective was partially attained.

All grades except one maintained their national percentile rank on the Reading Comprehension section; all but three maintained their national percentile rank on the Reading Vocabulary section.

The Comprehension and Vocabulary sections of the California Achievement Tests (CAT-70) were administered to project pupils in Grades 1-8 in May 1976. Each grade's mean score was converted to the corresponding individual-pupil national percentile rank in the publisher's norm tables. Percentile ranks for 1975 and 1976 are shown in Table 1.

Between May 1975 and May 1976, current Grades 2, 5, 6, and 8 exhibited gains in mean scores on the Reading Vocabulary section of CAT-70, which were sufficient to maintain or improve their national percentile ranks. Current Grades 2, 3, 5, 6, 7, and 8 maintained or improved their national percentile ranks in Reading Comprehension. Only Grades 3, 4, and 7 in Reading Vocabulary and Grade 4 in Reading Comprehension failed to maintain their percentile ranks of the previous year.

Objective 2: Project pupils will develop basic skills in mathematics during the 1975-1976 school year to the extent evidenced by at least maintaining their national percentile ranks from the previous school year on the Mathematics Computation and Mathematics Concepts & Problems sections of the California Achievement Tests.

This objective was partially attained.

All grades except three maintained their national percentile rank on the Mathematics Computation section; all but two maintained their national percentile rank on the Mathematics Concepts/Problems section.

The Computation and Concepts/Problems sections of CAT-70 were administered to all project pupils in May 1976. By means of the score-conversion procedures used in treating Objective 1, the current year's CAT-70 results were compared with the previous year's scores. National percentile ranks for each grade are shown in Table 2.

Between May 1975 and May 1976, current Grades 2, 5, 6, and 8 exhibited gains in mean score on the Mathematics Computation section of the CAT, which were sufficient to maintain or improve their national percentile ranks. Current Grades 2, 3, 5, 6, and 8 maintained or improved their national percentile ranks on the Mathematics Concepts/Problems section. Only Grades 3, 4, and 7 in computation and Grades 4 and 7 in Concepts/Problems failed to maintain their percentile ranks of the previous year.

Objective 3: With the assistance of paraprofessionals and a reading specialist teacher, project teachers will implement a system of individualized instruction in basic academic skill areas (reading, language arts, and mathematics) as determined by systematic observations of IEC classrooms with the Learning Environment Checklist. The following criteria will be applied: (a) with respect to classroom grouping arrangements, pupils will be working in small groups (2 to 10 pupils) and/or as individuals during at least 85% of observed time; (b) with respect to the level of instructional differentiation, in less than 5% of *observed time will all pupils be working on the same assignment; (c) with respect to the role of the teacher, in at least 50% of observed time the teachers will be actively guiding and/or assisting groups or individuals; (d) with respect to the activities of the paraprofessionals, at least 25% of observed time will be devoted to working with individual children; and (e) with respect to the pupils' activities, at least 25% of observed time will be devoted to individual activities (self-selected or teacher-directed).*

This objective was partially attained. Parts a, b, and e were attained; parts c and d were not.

Observations were conducted four times during the school year (October, December, February, May) using the Learning Environment Checklist to describe the instructional system in project classrooms. Major characteristics included in the checklist were (a) classroom organization (including the number of pupils in each group), (b) instructional differentiation level, (c) teacher role, (d) paraprofessional activities, (e) pupil activities, and (f) pupil attitudes. Forty-minute observation periods were divided into eight consecutive five-minute intervals during which judgements for each of the six characteristics were recorded.

Findings from the 33 forty-minute observations are shown in Tables 3 to 7. Generally, teachers of observed IEC classes attempted to provide individualized instruction by using effective grouping procedures, teacher-directed and pupil-selected individual activities, multimedia equipment, and instructional materials.

The following summarizes the observation data: (a) pupils were working in small groups and/or as individuals during 89% of observed time; (b) all pupils were working on the same assignment during 3% of observed time; (c) teachers were actively guiding and/or assisting groups or individuals during 45% of observed time; (d) paraprofessionals were working with individual children during 10% of observed time; and (e) pupils were wroking on individual activities (self-selected or teacher directed) during 34% of observed time.

It should be noted that the non-attainment of parts c and d of the objective may be attributed to the new staff (6 of 8 teachers) and their options in dealing with individualized instructional practices. The minimum criteria specified in the objective were based upon a summary of observations conducted during the previous two years of formal project evaluation.

SUMMARY AND CONCLUSIONS

The Individualized Education Center continues to serve as a model of successful integration by bussing children from various parts of the city and by providing them with a compensatory program that remediates their academic weaknesses through an extensive system of individualized instruction.

The project was fully implemented according to its intended mode of operation. The introduction of six new but relatively experienced teachers did not delay the implementation of individualized instruction until later in the school year. In the past such a large turnover in staff contributed to incomplete project implementation until the new staff had familiarized themselves with the project's philosophy and practices.

The current year's evaluation employed extensive classroom observations and the administration of a standardized achievement test series.

The project's objectives were partially attained. Results of administering the CAT-70 showed that average gains in reading and mathematics between May 1975 and May 1976 were sufficient to maintain or improve national percentile ranks in 18 of 28 instances. Moreover, formal observations revealed the successful attainment of 3 of 5 conditions which contribute to a system of individualized instruction. The two conditions which were not attained may be attributed to the practices of the new staff.

TABLE 1

1975 AND 1976 PERCENTILE RANKS AND GE GAINS BASED ON MEAN SCORES OF SAME IEC PUPILS ON READING SECTIONS OF CAT-70

1976 Grade Level	Vocabulary			Comprehension		
	Percentile Rank		GE Gain	Percentile Rank		GE Gain
	1975	1976		1975	1976	
1	--	87	--	--	91	--
2	77	76	1.3	58	70	1.5
3	63	56	0.9	57	55	1.1
4	50	38	0.4	56	41	0.2
5	37	36	1.0	36	46	1.4
6	43	53	1.5	44	59	1.9
7	36	31	0.8	44	45	1.3
8	30	28	1.0	44	44	1.1

TABLE 2

1975 AND 1976 PERCENTILE RANKS AND GE GAINS BASED ON MEAN SCORES OF SAME IEC PUPILS ON MATHEMATICS SECTIONS OF CAT-70

1976 Grade Level	Computation			Concepts/Problems		
	Percentile Rank		GE Gain	Percentile Rank		GE Gain
	1975	1976		1975	1976	
1	--	68	--	--	70	--
2	53	74	1.4	59	80	1.7
3	53	44	0.8	52	48	0.9
4	60	36	0.4	65	48	0.3
5	24	47	1.7	45	43	1.3
6	47	47	1.0	52	55	1.3
7	42	27	0.0	43	34	0.5
8	25	39	1.9	33	32	1.0

TABLE 3

CLASSROOM ORGANIZATIONS OBSERVED IN INDIVIDUALIZED EDUCATION CENTER

Organization	Five-Minute Observation Periods	
	Number	Percentage
Whole Class	9	3%
Two Groups	9	3
More than Two Groups	67	25
Group(s) and individuals	151	57
Individuals	25	10
Undetermined	2	1

TABLE 4

DIFFERENTIATION OF INSTRUCTION OBSERVED IN INDIVIDUALIZED EDUCATION CENTER

Level of Differentiation	Five-Minute Observation Periods	
	Number	Percentage
Whole Class with Same Task	9	3%
Two or More Groups with Different Tasks	77	29
One or More Groups plus Individuals, All with Different Tasks	150	57
Individuals: All Pupils in the Class with Different Tasks	25	10
Undetermined	2	1

TABLE 5

TEACHER ROLES OBSERVED IN IEC CLASSES

Role	Five-Minute Observation Periods	
	Number	Percentage
Passive: Available for Guidance	3	1%
Actively Guiding/Assisting Groups or Individuals	118	45
Presenting Information to Groups or Individuals	124	47
Directing/Lecturing Whole Class	9	3
Performing Administrative Tasks	9	3
Teacher Not Available	0	0

TABLE 6

ACTIVITIES OF PARAPROFESSIONALS OBSERVED IN IEC CLASSES

Activity	Five-Minute Observation Periods	
	Number	Percentage
Supervising/Assisting Groups of More than 10 Pupils	0	0%
Supervising/Assisting Groups of 2-10 Pupils	163	62
Supervising/Assisting Individuals	27	10
Performing Clerical/Administrative Tasks	19	7
Unstructured Time	6	2
Absent or Not Available	48	18

TABLE 7

ACTIVITIES OF PUPILS OBSERVED IN IEC CLASSES

Activity	Five-Minute Observation Periods	
	Number	Percentage
Inappropriate Activity	1	0
Waiting or Moving	10	4
Getting/Returning Materials	17	6
Group Activity	144	55
Individual Activity	91	35

INTENSIVE READING FOR SECONDARY STUDENTS
(A Component of the COMPREHENSIVE READING PROJECT)

In accordance with the court order of August 4, 1975, Intensive Reading for Secondary Students provides supplemental small-group instruction in reading for Title I secondary students having reading-skill deficits.

RATIONALE

On standardized tests of basic skills, Title I students tend to score below national norms for their grade level, particularly in reading. The project is based upon the assumption that supplementary reading services and additional instructional periods in reading can ameliorate secondary students' general achievement levels which are low because of their reading difficulties. Additional reading personnel and small-group reading-instruction periods are provided as mandated by the court order of August 4, 1975.

EXPECTED OUTCOMES

Pupils who attend at least 85% of the reading classes should show measurable improvement in reading comprehension and vocabulary skills.

MODE OF OPERATION

Title-I-eligible students in Grades 7-12 were selected for the project on the basis of their February 1975 scores on the California Achievement Tests' (CAT) Reading Comprehension section or (for students lacking such scores) September 1975 scores on a group informal reading inventory (IRI).

Students who scored below the 16th percentile on the CAT (or equivalent on the IRI) were grouped in classes of 15. Those scoring at the 16th through 32nd percentiles were grouped in classes of 20. Junior high school students receive five additional periods of reading per week and senior high school students receive three.

To implement this project, additional teachers of reading are assigned to give participating Title-I-eligible children the special reading instruction. These teachers teach five classes per school day. Each period is at least 40 minutes in length. These classes are in addition to the regular five periods of English which each student is required to take.

Each newly appointed teacher receives at least 15 hours of orientation by November and five additional hours of training per month, either in or out of the instructional setting.

One classroom aide is assigned to each of the Title I senior high schools to assist in implementing this project.

PREVIOUS FINDINGS

There were no previous findings because this was the first year of the project.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of Intensive Reading for Secondary Students focused upon project implementation mandated by the court order of August 4, 1975, and on academic gain by participating pupils.

IMPLEMENTATION

During 1975-1976, the project was fully implemented.

By October 1, 1975 the IRI was administered to 6,900 secondary students who did not have a 1975 CAT score. The IRI scores, having been empirically related to CAT scores, were used for assigning students to their proper instructional groups.

During October 1975, a team of 20 state monitors visited the court-designated Title I schools. The team reported that, as stipulated in the court order, (a) at least 318 teachers of reading were assigned to provide instruction to Title I children; (b) identified students were rostered to their proper classes; and (c) proper average class sizes were being maintained (15 for students scoring below the 16th percentile and 20 for those at the 16th through 32nd percentiles).

Project personnel reported that by November 1, 1975, newly appointed teachers had received at least 15 hours of orientation, and, on a monthly basis, an additional five hours of training.

Each of the 11 participating senior high schools received one classroom aide to assist in the school's program. The programs were remedial, emphasizing individual and small-group instruction.

The project director interviewed senior high school faculty and students. The interviews revealed that students assigned for three days per week to remedial classes had to drop or cut other regular classes (such as social stuides or science). Teachers in other curricular areas complained that court mandated classes were detrimental to students who wished to carry a normal complement of classes. It was also reported that students who wished to enroll in a work-study program were forced to drop such plans because of assignment to remedial classes.

In addition to the 234 Title I reading teachers who taught at least five periods of remedial reading per day, 244 teachers, paid from the operating budget, taught at least one Title I class.

ATTAINEMENT OF OBJECTIVES

Objective 1: All students below the 16th percentile on the junior high school level will receive five additional periods of reading per week in classes which average 15 students.

This objective was fully attained.

State monitors who visited the 23 junior high/middle schools in November 1975 reported full compliance with the court decree. Students below the 16th percentile on the junior high school level received five additional periods of reading per week in classes which averaged 15 students per class.

Objective 2: All students below the 16th percentile on the senior and technical high school level will receive three additional periods of reading per week in classes which average 15 students.

This objective was fully attained.

The state auditors, after visiting the 11 senior high schools in November 1975, certified complete compliance with the court decree. Students on the senior high and technical school level who had scored below the 16th percentile in total reading on the CAT in February, 1976 received three additional periods of reading in classes which averaged 15 students per class.

Objective 3: All students at the 16th through 32nd percentiles on the junior high school level will receive five additional periods of reading per week in classes which average 20 students.

This objective was fully attained.

The state auditors certified complete compliance with the court decree. Students on the junior high school level who had scored at the 16th through 32nd percentiles in Total Reading on the CAT in February, 1976 received five additional periods of reading in classes which averaged 20 students per class.

Objective 4: All students at the 16th through 32nd percentiles on the senior and technical high school level will receive three additional periods of reading per week in classes which average 20 students.

This objective was fully attained.

The state auditors certified complete compliance with the court decree. Students on the senior high and technical school level who had scored at the 16th through 32nd percentiles in Total Reading on the CAT in February, 1976 received five additional periods of reading in classes which averaged 20 students per class.

Objective 5: Each school, through the cooperative efforts of the principal and its existing reading teachers, will prepare a plan of implementation that will take into account facilities, instructional materials, scheduling changes, teaching personnel, and other unique factors that will need to be taken into account in order to plan for the most effective implementation of the project.

This objective was fully attained.

The project director visited each participating school, reviewed all implementation plans, and reported that a satisfactory plan was found. This finding was verified by the state auditors.

Objective 6: Students who are admitted to the program by October 1, and who attend school at least 85% of the time during the first two report periods, will maintain or improve their percentile ranks on the Reading sections of the CAT between the 1975 and 1976 testings.

This objective was partially attained.

In order to determine the impact of this program on pupil achievement as it relates to student participation in this program, the following design was employed:

For each of the 34,000 students who had taken the CAT and scored below the 33rd percentile in Reading Comprehension in February 1975, an IBM card was punched with the student's name, ID number, school number, and 1975 CAT scores. Each Title I teacher recorded on the card the number of sessions per week that the particular student was assigned to reading and the number of absences from October 1, 1975 to March 31, 1976. Complete data was available for 17,448 students.

Students for whom total reading scores were not available for both years were not included. In addition, approximately 8,000 students were reported as having changed schools or left school.

Tables 7 and 8 provide the breakdown of the gains or losses of students (Grades 7-12) from 1975 to 1976 by attendance category (85% attendance vs. less than 85% attendance) and CAT scores (below 15th vs 16th%-32nd %ile). In all the grades and for all levels, students made greater gains on the Comprehension section than on the Vocabulary section:

Students Scoring Below the 16th Percentile in 1975

Junior High. The project showed most effect with those students in Grades 7-9 who had scored below the 16th percentile in Total Reading on the CAT in 1975. From two-thirds to three-quarters of these students gained in or maintained their percentile ranks on the Vocabulary and Comprehension sections of the CAT. There were no significant differences between students in Grade 7 and 9 who attended at least 85% of the sessions and those who did not.

In Grade 8, there were 6% more students who gained in percentile rank on the two sections among the students who had attended at least 85% of the sessions, than among the students who had not attended 85% of the sessions.

Senior High. Students in Grades 10 and 11 did poorly compared to students in the other grades. From 55% to 65% of those students gained in or maintained their percentile ranks on the reading section of the CAT. Three-quarters of Grade 12 students, however, gained in or maintained their percentile ranks on the CAT sections. There were no significant differences in any of the three grades between students who attended at least 85% of the sessions and those who did not.

Students Scoring Between the 16th and 32nd Percentile in 1975

Students in this category performed significantly poorer in all grades than students who had scored below the 16th percentile in 1975.

Junior High. Approximately 55% of the students in Grades 7 and 8 who attended at least 85% of the sessions gained in or maintained their percentile rank on the two CAT sections. Among those not attending at least 85% of the sessions, approximately 10% fewer students attained this objective. In Grade 9, over half of all the students, regardless of their attendance patterns, lost in percentile rank on the Vocabulary section. However, two-thirds of those who attended at least 85% of the sessions and 56% of the students who did not, attained this objective on the Comprehension section.

Senior High. In Grade 10, two-thirds of all the students, regardless of their attendance pattern, lost in percentile rank on the Vocabulary section of the CAT. However, half of the 10th graders who attended at least 85% of sessions and 43% of those who did not, attained this objective on the Comprehension section.

In Grade 11, 63% of all the students, regardless of their attendance patterns, lost in their percentile ranks on the two sections of the CAT.

In Grade 12, half of all the students, regardless of their attendance patterns, attained this objective on the Vocabulary section. On the Comprehension section, 60% of those who attended 85% of the sessions, and 54% of those who did not, attained this objective.

Supplemental Data

In order to determine the attendance and cutting patterns of participating students, the following additional study was conducted:

During a three-week period (March 19-April 9, 1976), every Title I reading teacher was randomly assigned one day to submit a record of attendance for all remedial classes. For each period, the teacher recorded the number of students enrolled, the number cutting on that day, and the number present. One hundred thirty-four of 141 (95%) junior high/middle Title I teachers, 81 of 92 (88%) senior high Title I teachers, and 25 part-time junior high teachers returned these attendance sheets. This permitted a cross-sectional view of attendance during one period in time.

The enrollment and attendance data are summarized in Tables 1 and2. The overall attendance breakdown for students scoring below the 16th percentile and for those scoring between the 16th and 32nd percentiles is noted in Table 3. The degree to which students cut the remedial classes is reported in Tables 4, 5, and 6.

Junior High (1) On Roll: The average number of students on roll per class was 13.7 students (Table 2). Fifty-seven percent of all the junior high classes had 11-15 students enrolled and 16% had 1-10 students (Table 1). Therefore, 73% of all the classes had 1-15 students per class enrolled and 25% had 16-20 enrolled. Only 2.3% of the classes (16 classes) reported more than 20 students per class.

Information derived from the individual student data gathered at the end of the year (see description under objective 6) made possible a further breakdown of this information.

Of the total number of junior high students in the project, 53% of the 7th grade and 60% of the 8th- and 9th-grades were students who had scored below the 16th %ile rank in 1975 (Table 3). Forty-seven percent of the 7th grade and 40% of the 8th and 9th grades were students who had scored at the 16th through 32nd %ile on the CAT Total Reading in 1975.

(2) Attendance: Teachers reported that for the three-week sample period, the average number of all junior high students present per class was 10.6 students. In 43% of the classes, 11-15 students were present; in 41%, 6-10 students were present; in 7.6% of the classes, 16-20 were present; in 8%, 1-5 students were present.

Some further insight might be gained by comparing the attendance rate of the target population with the overall attendance rate of the schools involved. During March 1976, the median total school attendance rate for the 23 Title I junior high/middle schools was 81%. Overall, 68% of junior high school students who were assigned to remedial reading classes during March 1976 were reported present in those classes (Table 4). Consequently, the attendance of students at the special remediate classes was lower than the total school attendance. It is possible that students who attend remedial classes generally have a poorer attendance rate than other students. Since no information was available concerning the prior attendance patterns of participating students, it was not known whether this represented the continuation of an existing patter, an improvement, or a decline.

From October 1, 1975 To March 31, 1976, 69% of the 7th grade, 68% of the 8th grade, and 63% of the 9th grade students who had scored below the 16th %ile rank attended at least 85% of all the sessions; the remainder attended from 35% to 84% of all the sessions (Table 3). Approximately 78% of the 9th grade students who had scored between the 16th and 32nd %ile ranks attended at least 85% of all the sessions.

(3) Cutting: Cutting was not reported to be a major problem in junior high remedial reading classes. During the three-week sample period, 3% of the junior high students were reported cutting remedial classes each period (Table 4). More than two-thirds of the classes reported no students cutting, and a quarter of the classes reported one or two students cutting (Table 5). Overall, the average junior high class had 0.8 students cutting (Table 4) each period. There was no significant difference in the number of junior high cuts by class period (Table 6).

Senior High. (1) On roll: The average number of participating senior high and technical high school students on roll per class was 12.8 students (Table 2). More than half of all the senior high classes had 11-15 students enrolled, and 29% had 1-10 students (Table 1). Hence, 82% of all the classes had 1-15 students.

Information derived from the individual student data gathered at the end of the year (see description under objective 6) made possible a further breakdown of this information. Of the total number of Grade 10-12 students in the project, 60% of the 10th grade, 72% of the 11th grade, and 77% of the 12th grade were students who had scored below the 16th percentile rank in 1975 (Table 3).

(2) Attendance: For the three-week sample period in March 1976, the average number of all senior high students present per class was 7.6 students (Table 2). In 21% of the classes, 11-15 students were present; in 45%, 6-10 students were present; and in 32%, 1-5 students were present. These figures indicate that high absenteeism was a serious problem in the senior high school.

The situation is further highlighted by a comparison of Title I students' attendance rate with their schools' overall attendance rate. During March 1976, the median total school attendance rate for the 11 Title I senior high schools was 74%. Overall, 61% of senior high school students who were assigned to remedial reading classes during March 1976 were reported present in those classes (Table 4). As noted in the discussion of the junior high classes, without any previous information for these students, it was not known whether this represented the continuation of an existing pattern, an improvement, or a decline.

From the data provided by teachers in a supplementary study of students' attendance patterns from October 1, 1975 to March 31, 1976 it was noted that approximately half of the students that scored below the 16th %ile in 1975 attended 85%-100% of all the sessions and the other half attended from 35%-84%.

Of the total number of senior high students in the project, 40% of the 10th grade, 28% of the 11th, and 23% of the 12th grade students scored between the 16th and 32nd %iles. From 53% to 59% of all these students attended at least 85% of all class sessions from October 1, 1975 to March 31, 1975 (Table 3).

(3) Cutting: Cutting may partially account for relatively poor attendance figures. During the three-week sample period, the average senior high class reported 2.1 students cutting each period. This figure means that 16% of the rostered senior high students cut remedial classes each period (Table 4). A third of the classes reported an average of three to five cuts per period; 47% reported one or two students cutting each period; and 20% reported no cuts at all (Table 4). Fifty-four percent of the cuts were in periods 1-4, and 46% in periods 5-8 (Table 6).

SUMMARY AND CONCLUSIONS

The Intensive Reading for Secondary Schools Project was fully implemented in its first year of operation. In addition to 234 Title I reading teachers who taught at least five periods of remedial reading per day, 244 teachers on the operating budget taught at least one Title I class.

Five of the six objectives were fully attained. State auditors who visited the schools reported that all secondary schools named in the court order had fully met the major provisions of the order. By October 1, 1975, junior and senior high students who had scored below the 16th percentiles on the CAT were grouped in classes of 15 and were receiving the specified additional five or three periods of reading instruction per week. Students who had scored from the 16th through 32nd percentiles were grouped in classes of 20 and were receiving the specified additional five or three periods of reading instruction per week. Students with no 1975 CAT scores were tested with a machine group IRI and then placed appropriately.

The objective for all students who attended 85% or more sessions to maintain or improve their percentile ranks was partially attained. In all of the grades and for all levels, students made greater gains in percentile rank on the Comprehensive section than on the Vocabulary section.

The program had its greatest impact on students in Grades 7-9 and in Grade 12 who had scored below the 16th percentile in Total Reading on the CAT in 1975. Approximately 70% of these students gained in, or maintained, their percentile ranks on the Vocabulary and Comprehension sections of the CAT.

Among students who had scored between the 16th and 32nd percentiles in 1975, approximately 55% of the students in Grades 7 and 8 who attended at least 85% of the sessions gained in, or maintained their percentile ranks on the two CAT sections. Among those not attending at least 85% of sessions, approximately 10% fewer students gained in, or maintained their percentile ranks on the CAT sections. In Grade 9, two-thirds of those who attended at least 85% of the sessions and 56% of the students who did not, were successful in maintaining or gaining their percentile rank on the Comprehension section. Student performance in Grades 10 and 11 was, in general, very poor. From 50% to 70% of those students who had scored between the 16th and 32nd percentiles in 1975 lost in percentile ranks. From 35% to 45% of those who had scored below the 16th %ile similarly lost in their percentile ranking.

In Grade 12, among students who had scored between the 16th and 32nd percentiles, 60% of those students who attended 85% of the sessions and 54% of those who did not attend, maintained or gained in their percentile rank on the Comprehension section. However, half of these students, regardless of their attendance patterns, performed thusly on the Vocabulary section.

Supplementary studies indicated that the average number of students rostered for each remedial class was 13.7 in junior high and 12.8 in senior high schools. Sixty-eight percent of the junior high and 61% of the senior high students assigned to these classes were reported present during a three-week sample period.

Overall, Title I junior high teachers reported an average of less than one student (0.8) cutting per period in each class; senior high teachers reported 2.1 students cutting per period in each class. Two-thirds of the junior high classes and 20% of the senior high classes reported no cuts. Senior high faculties recommended that, in order to reduce cutting, remedial reading classes should be rostered on a regular basis--five periods per week--as in junior high schools. In this way, students would not have to choose between cutting the reading class to attend other major subjects, or cutting the other major subjects to attend reading.

TABLE 1

ENROLLMENT OF STUDENTS IN INTENSIVE READING PROJECT'S REMEDIAL CLASSES
REPORTED BY 240 TITLE I TEACHERS

Schools	Classes Having Enrolled										Total No. of Classes	Median Enrollment per Class
	1-5 Students		6-10 Students		11-15 Students		16-20 Students		21+ Students			
	N	%	N	%	N	%	N	%	N	%		
23 Jr Hi	16	2.3%	95	13.6%	399	56.9%	174	24.9%	16	2.3%	700	13.6%
11 Sr Hi	22	5.6%	93	23.6%	209	53.0%	65	16.5%	5	1.3%	394	12.6%

TABLE 2

ATTENDANCE PATTERNS OF STUDENTS IN INTENSIVE READING PROJECT'S REMEDIAL CLASSES DURING A THREE-WEEK PERIOD, MARCH-APRIL 1976

Schools	Classes Attended by										Total No. of Classes	Median Attendance per Class
	0-5 Students		6-10 Students		11-15 Students		16-20 Students		21+ Students			
	N	%	N	%	N	%	N	%	N	%		
23 Jr Hi	57	8.2%	283	40.6%	299	42.9%	53	7.6%	5	0.7%	697	10
11 Sr Hi	129	31.6%	183	44.9%	85	20.8%	11	2.7%	0	0.0%	408	7

TABLE 3

STUDENTS ATTENDING INTENSIVE READING PROJECT'S REMEDIAL CLASSES IN 34 SECONDARY SCHOOLS, OCTOBER 1975 - MARCH 1976

%ile Rank in 1975	Percentage of Remedial Classes Attended[1]	Students Attending Remedial Classes						
		Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Grades 7-12
		N, % of Total (& % of GT)	N % of Total (& % of GT)	N % of Total (& % of GT)	N, % of Total (& % of GT)	N, % of Total (& % of GT)	N, % of Total (& % of GT)	N, % of Total (& % of GT)
Below 16th	85-100	1,016 68.7% (36.4%)	1,467 67.9% (40.2%)	1,233 62.5% (37.5%)	651 48.7% (29.2%)	886 46.6% (33.6%)	806 55.8% (42.8%)	6,059 58.9% (36.8%)
	35-84	463 31.3% (16.6%)	695 32.1% (19.0%)	739 37.5% (22.4%)	687 51.3% (30.8%)	1,015 53.4% (38.5%)	639 44.2% (33.9%)	4,238 41.1% (25.7%)
	Total	1,479 100.0% (53.0%)	2,162 100.0% (59.2%)	1,972 100.0% (59.9%)	1,338 100.0% (60.0%)	1,901 100.0% (72.1%)	1,445 100.0% (76.7%)	10,297 100.0% (62.5%)
16th thru 32nd	85-100	1,019 77.8% (36.5%)	1,144 76.8% (31.3%)	898 68.1% (27.3%)	499 56.0% (22.4%)	389 52.9% (14.8%)	259 59.1% (13.8%)	4,208 68.1% (25.5%)
	35-84	291 22.2% (10.5%)	345 23.2% (9.5%)	420 31.9% (12.8%)	392 44.0% (17.6%)	346 47.1% (13.1%)	179 40.9% (9.5%)	1,973 31.9% (12.0%)
	Total	1,310 100.0% (47.0%)	1,489 100.0% (40.8%)	1,318 100.0% (40.1%)	891 100.0% (40.0%)	735 100.0% (27.9%)	438 100.0% (23.3%)	6,181 100.0% (37.5%)
GRAND TOTAL (GT)		2,789 (100.0%)	3,651 (100.0%)	3,290 (100.0%)	2,229 (100.0%)	2,636 (100.0%)	1,883 (100.0%)	16,478 (100.0%)

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[1] No enrolled student attended less than 35% of the remedial classes.

TABLE 4

ATTENDANCE AND CUTTING PATTERNS OF STUDENTS IN INTENSIVE READING PROJECT'S REMEDIAL CLASSES DURING A THREE-WEEK PERIOD, MARCH-APRIL 1976*

Schools	Students on Roll			Students Present				Students Cutting			
	Total Reported	Class Mean	SD	Total Reported	Class Mean	SD	% of Enrollment	Total Reported	Class Mean	SD	% of Enrollment
23 Jr Hi	9,604	13.7	3.80	6,563	10.6	3.94	68.3%	271	0.8	1.47	2.8%
11 Sr Hi	5,039	12.8	4.29	3,054	7.6	3.84	60.6%	799	2.1	1.84	15.9%

TABLE 5

CUTTING PATTERNS OF STUDENTS IN INTENSIVE READING PROJECT'S REMEDIAL CLASSES DURING A THREE-WEEK PERIOD, MARCH-APRIL 1976

Schools	Classes Reporting Cutting by												Total No. of Classes
	0 Students		1 Student		2 Students		3 Students		4 Students		5 Students		
	N	%	N	%	N	%	N	%	N	%	N	%	
23 Jr Hi	416	66.4%	89	14.2%	57	9.1%	26	4.1%	18	2.9%	21	3.3%	627
11 Sr Hi	82	20.4%	97	24.2%	92	23.0%	57	14.2%	33	8.2%	40	10.0%	401

TABLE 6

CLASS PERIODS WHEN STUDENTS CUT INTENSIVE READING PROJECT'S REMEDIAL CLASSES DURING A THREE-WEEK PERIOD, MARCH-APRIL 1976

Schools	Cuts Reported During				Total No. of Cuts
	Periods 1-4		Periods 5-8		
	N	%	N	%	
23 Jr Hi	109	51.7%	102	48.3%	211
11 Sr Hi	172	54.4%	144	45.6%	316

TABLE 7

CHANGE IN PERCENTILE RANK ON CAT VOCABULARY SECTION BY STUDENTS IN INTENSIVE READING PROJECT, IN RELATION TO PERCENTAGE OF REMEDIAL CLASSES ATTENDED AND 1975 PERCENTILE RANK

Grade in 1976	Percentile Rank Change Since 1975*	Students Who Attended							
		At Least 85% of Classes				Less than 85% of Classes			
		Percentile Rank in 1975				Percentile Rank in 1975			
		Below 16th		16th-32nd		Below 16th		16th-32nd	
		N	%	N	%	N	%	N	%
7	Gain	456	44.9	439	43.1	205	44.3	77	26.4
	None	260	26.0	130	12.8	105	22.7	46	15.9
	Loss	296	29.1	450	44.1	153	33.0	168	57.7
8	Gain	692	47.1	445	38.9	277	39.8	92	26.7
	None	397	27.1	172	15.0	204	29.4	52	15.1
	Loss	378	25.8	527	46.1	214	30.8	201	58.2
9	Gain	473	38.3	310	34.5	261	35.3	110	26.2
	None	419	34.0	130	14.5	257	34.7	87	20.7
	Loss	349	27.7	458	51.0	222	30.0	223	53.1
10	Gain	156	24.0	102	20.5	136	19.8	79	20.2
	None	266	40.8	78	15.6	304	44.2	40	10.2
	Loss	229	35.2	319	63.9	247	36.0	273	69.6
11	Gain	233	26.3	82	21.0	232	23.1	82	23.7
	None	336	37.9	57	14.7	455	45.3	51	14.7
	Loss	317	35.8	250	64.3	318	31.6	213	61.6
12	Gain	296	36.7	96	37.1	228	35.7	74	41.3
	None	316	39.2	35	13.5	243	38.0	19	10.6
	Loss	194	24.1	128	49.4	168	26.3	86	48.1
All Grades 7-12	Gain	2,306	38.0	1,474	35.0	1,345	31.7	515	26.1
	None	1,998	33.0	602	14.3	1,568	37.0	295	15.0
	Loss	1,755	29.0	2,132	50.7	1,325	31.3	1,163	58.9

*Gains and losses of less than 3 percentile points were considered no change.

TABLE 8

CHANGE IN PERCENTILE RANK ON CAT COMPREHENSION SECTION BY STUDENTS IN INTENSIVE READING PROJECT, IN RELATION TO PERCENTAGE OF REMEDIAL CLASSES ATTENDED AND 1975 PERCENTILE RANK

Grade in 1976	Percentile Rank Change Since 1975*	Students Who Attended							
		At Least 85% of Classes				Less than 85% of Classes			
		Percentile Rank in 1975				Percentile Rank in 1975			
		Below 16th		16th-32nd		Below 16th		16th-32nd	
		N	%	N	%	N	%	N	%
7	Gain	547	53.9	401	39.3	232	49.6	110	37.8
	None	196	19.3	149	14.6	106	22.6	24	8.2
	Loss	272	26.8	470	46.1	130	27.8	157	54.0
8	Gain	752	51.6	491	42.9	313	44.6	130	37.1
	None	281	19.3	153	13.4	141	20.1	50	14.3
	Loss	423	29.1	500	43.7	248	35.3	170	48.6
9	Gain	649	52.4	438	48.8	350	47.3	173	41.2
	None	236	19.0	137	15.2	173	23.4	61	14.5
	Loss	354	28.6	323	36.0	217	29.3	186	44.3
10	Gain	244	37.3	160	31.8	230	33.5	110	28.1
	None	176	27.0	89	17.7	188	27.4	58	14.8
	Loss	233	35.7	254	50.5	268	39.1	224	57.1
11	Gain	222	25.2	87	22.4	314	30.9	90	26.2
	None	254	28.9	56	14.4	325	32.0	36	10.5
	Loss	404	45.9	246	63.2	376	37.1	217	63.3
12	Gain	356	44.5	127	49.2	295	45.8	74	41.8
	None	257	32.2	28	10.9	204	31.6	21	11.9
	Loss	186	23.3	103	39.9	146	22.6	82	46.3
All Grades 7-12	Gain	2,770	45.8	1,704	40.4	1,734	40.8	691	35.0
	None	1,400	23.2	612	14.5	1,137	26.7	250	12.6
	Loss	1,872	31.0	1,899	45.1	1,385	32.5	1,035	52.4

*Gains and losses of less than 3 percentile points were considered no change.

LANGUAGE ARTS READING CAMPS
(A Component of the COMPREHENSIVE READING PROJECT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Language Arts Reading Camps (LARC) is an innovative language, reading, and communication-skills summer project designed to improve and supplement disadvantaged pupils' competencies in language arts. The camps, operated by settlement houses and housing developments, receive their language-arts components from the School District. In informal settings at scattered playground sites, LARC provides stimulating experiences to motivate active participation in oral expression, creative writing, and leisure reading.

RATIONALE

LARC participants live in inner-city housing projects, and are economically and educationally disadvantaged. These pupils' reading and language-arts skills are deficient, and their regular school language-arts programs can only partially remediate these deficiencies.

Title I pupils need increased facility with language in all areas of communication. Some are bilingual, and some are less communicative than their peers because they lack versatile language experiences at home. Basically, the pupils need to talk and listen to someone. Pupils in Grades 7-12 especially need an increased facility with language, to achieve the more complex and sophisticated communication necessary for adult educational and vocational activities.

In order to learn to use language with confidence and enjoyment, LARC pupils need encouragement and reinforcement. Pupils also need to maintain language skills acquired during the previous school year, which can be partially lost during the summer months.

EXPECTED OUTCOMES

LARC attempts to improve and supplement participating pupils' language-arts skills including oral expression, creative writing, and leisure reading. The informal day-camp setting provides the motivation to increase language abilities for pupils and their teenage youth counselors.

MODE OF OPERATION

During six weeks in July and August, three hours of language-arts activities are provided each morning. The afternoon hours are spent on group and/or individual language-arts-related recreational activities.

LARC teachers assigned to each site supervise and maintain the language-arts program. Teachers spend an average of 15 hours a week working directly with the children, assisting camp counselors, and holding daily and weekly meetings with their staff. At these meetings, teachers and staff discuss the characteristics and needs of the children and the use of language-arts activities and materials.

Most camps encourage the production of newspapers. The children prepare and produce camp newspapers with assistance from the staff. Cameras and tape recorders are used to develop oral and written communication skills. Other LARC activities include writing self-portrait stories and playing LARC bingo, bean-bag games designed to teach vowels and consonants, ring-toss games to teach prefixes and suffixes, and post office games for developing written communication skills. LARC teachers use their creative, innovative ideas in developing activities to motivate children to improve their language-arts skills. Temple University Veterans in Public Service (VIPS) are taught techniques and ideas to use in language-arts instruction with the children.

PREVIOUS FINDINGS

In each year of the project, teachers planned, developed, and executed formal and informal language-arts activities for the children. They reported that the pupils showed increased interest in reading books and using the library, improvement in pronunciation, word-attack, and written composition skills, and a tendency to do additional work at home. Evaluators observed LARC children actively participating in group discussions.

In 1975, counselors were trained to provide individual language-arts instruction to the children. A picture-stimulus test revealed that the communication skills of participating pupils increased during the six weeks of the project. Most teachers reported an overall improvement in written composition, phrases, and sentences, with LARC participants reading an average of 4.1 paperback books during the summer.

EVALUATION OF THE CURRENT YEAR

To assess the attainment of the project's stated objectives, the current-year evaluation included on-site observations, LARC teacher surveys and questionnaires, interviews with LARC teachers, a picture-stimulus test, and conferences with the project director.

IMPLEMENTATION

The project's intended mode of operation was fully implemented.

The LARC Camps were staffed by two coordinating and 17 on-site LARC teachers, 160 Neighborhood Youth Corps counselors, and 22 Veterans in Public Service (VIPS) from Temple University. The staff engaged in planning, tutoring, and supervision. The project served more than 1,250 Title I eligible primary-grade children.

Thirty-seven systematic observations, averaging 45 minutes each, were made during the six-week period. Data were collected with a 15-category observational checklist, developed by the evaluators for use in observing informal activity-centered learning approaches. In all observations, LARC teachers and/or counselors prescribed a specific task (or number of tasks) for all pupils to accomplish. The LARC teaching approach was game-like rather than lecture, discussion, or drill, and in all cases LARC teachers organized structured games with a clear, cognitive focus. Language-arts games, either commercial or teacher-made, encouraged pupils to use their existing knowledge. The writing of stories, diaries, and newspapers was emphasized in most camps. Most camps posted many of the writings and drawings of the children as well as distributing the newspaper.

In 75% of the camps, activity schedules were posted. These schedules, encompassing from one to six weeks, outlined activities for teachers, counselors and campers. The LARC staff engaged in planning frequently. In 60% of the camps, LARC teachers and counselors met daily to plan the day's activities. In all other camps, weekly planning sessions were held.

Newspapers were published weekly in all camps. Teachers, counselors, and students participated in their preparation. Newspaper content included language-arts games, trip descriptions, autobiographical stories, drawings, and poems. In most camps, the counselors were responsible for the newspaper preparation. Newspapers were duplicated at the end of each week and distributed to the students.

The evaluators conducted interviews with all LARC teachers, in addition to making on-site observations. The teachers indicated that the project was in general successfully implemented. The selection of new LARC sites was thought to have been done effectively. Teachers were satisfied with the cooperation of the camp directors. Most took an active role in the planning and implementation phases of the program. Neighborhood Youth Corps counselors were provided with the needed supervision from the directors. The majority of teachers reported that they were able to coordinate language-arts component effectively into the overall camp program.

The teachers emphasized four areas of the project which should be maintained or improved. First, a two-day staff-development workshop was held prior to the camps' opening. LARC teachers felt this on-site orientation for the director, teacher, and counselors was effective and should be continued. Second, LARC teachers said they would like to know before the end of the school year whether they would be employed by LARC during the summer. The teachers could then plan in advance, and use some language-arts materials from their own schools. Final selection of LARC teachers and sites prior to the end of the school year would facilitate this planning. Third, most teachers commended their camp directors for taking an active role in the supervision of the counselors. Doing this, they felt, virtually insured satisfactory performances by the counselors. Fourth, all of the 17 LARC teachers reported that the services of the two coordinating teachers were necessary and effective. These teachers were responsible for providing vital instructional services, maintaining, and supporting and coordinating LARC activities for each camp.

ATTAINMENT OF OBJECTIVES

Objective 1: At the end of six weeks, participating children will have had a minimum of five verbal functioning experiences (e.g., story telling, creative drama) as determined by the LARC Observational Checklist and the LARC Teacher Questionnaire.

This objective was attained.

Participating teachers were requested to complete the LARC Teacher Activity Checklist on which they were to indicate the frequency of six language-arts activities with a verbal functioning emphasis for each week. Frequencies included: not at all, once or twice per week, and more than twice per week. The six activities included: four language-arts activities involving games, group discussions, and dramatics, which included writing and performing plays, and creative dramatics. The criterion of five verbal functioning experiences for participating children was considered met if all LARC teachers checked the once or twice weekly frequency for at least one of the six activities each of the project's six weeks, thereby totaling at least six activities. Also evaluators' anecdotal observation records were summarized to provide evidence of verbal functioning activities in the camps.

Of the 11 of 17 teachers who returned the checklist, eight teachers returned five checklists, two teachers returned four, and one teacher returned three. On all checklists returned at least two verbal functioning activities were indicated weekly, thereby exceeding the minimum of one activity for each week. In fact, the average teacher reported using all six activities at least once or twice each week, thereby providing their children with a minimum of 36 verbal functioning experiences during the six weeks (the trends in the data were applied to weeks for which no checklists were returned on the basis of the evaluators' observations).

Evaluators' observations during 37 visits over the six week project corroborated the checklist findings. Language-arts verbal functioning activities were observed during every visit to the camps. Story-telling by the children, usually about their trips and pictures, and LARC games, including BINGO and a bean-bag toss with decoding elements, were most frequently seen. Use of tape recorders, creative dramatics and reading self-written stories were also observed on a regular basis.

Objective 2: At the end of six weeks, participating children will have increased the quantity of their writings by 10% through production of camp newspapers and other creative writings, as determined by the LARC Teacher Questionnaire.

This objective was attained.

As described in Objective 1, participating teachers were asked to complete the LARC Activity Checklist. Six writing experiences were included on the checklist: three newspaper activities, writing about pictures, writing in a journal or diary, and writing book reports. A 10% increase in the quantity of the participating children's writings was considered attained if the children completed at least one writing activity each of the six weeks (versus no writing considered typical for Title I eligible children during the summer).

The 11 of 17 teachers who returned the checklist reported that they provided participating children with each of the six writing activities at least once each week, which exceeded the criterion as defined above. Furthermore, six teachers reported that they provided most of the writing activities three or more times each week.

Writing activities were observed during each of the evaluators' 37 visits. Newspaper writing activities were most frequently observed along with story writing revolving around trips and pictures.

Objective 3: At the end of six weeks, participating children will have increased significantly (at the .10 level) the quantity of their writing, as measured by word counts on pretest and posttest administrations of a locally developed Picture Stimulus Test.

This objective was not attained.

An evaluator-developed picture stimulus test was administered at the beginning and end of the project to 83 children across grade levels. The test measured writing abilities, using as an index the number of words and sentences in children's writing samples.

Of the 83 children, 41 (49%) used a greater number of words in the posttest story than on the pretest. The difference between pretest and posttest means was not statistically significant (t=.19, df=82, p>.10).

Of the 83 children, 40 (48%) wrote more sentences in the posttest story than on the pretest. The difference between pretest and posttest scores was not statistically significant (t=-1.6, df=82, p>.10).

Objective 4: By the end of six weeks, participating children will have demonstrated an appreciation of literature by voluntarily reading at least two paperback books, as determined by the LARC Teacher Questionnaire.

This objective was not applicable for the current year because insufficient funds were available for the purchase of paperback books for the camps.

Objective 5: During the six weeks of LARC, Youth Corps representatives will provide constructive help in language-arts activities to younger children, individually and in groups, as determined by the LARC Observational Checklist and the LARC Teacher Questionnaire.

This objective was attained.

The LARC Teacher Activity Checklist and the LARC Counselor Checklist were completed weekly by participating teachers and Neighborhood Youth Corps (NYC) counselors respectively. Evaluators kept anecdotal records for their 37 on-site camp visits.

Teacher and counselor checklists and evaluator observations showed that NYC Counselors engaged in planning activities, assisted children regularly in many different language arts activities, and worked individually and in small groups with participating children. All 11 teachers who returned the LARC Teacher Activity Checklist reported that they met at least weekly with their respective counselors to plan specific language-arts activities. Summary of the 88 of 160 counselors' checklists returned indicated that they worked with children at least weekly using tape-recorders, writing book reports, taking nature walks, and doing black heritage and awareness activities. Counselors tended to assist children three or more times per week with several newspaper and language-arts activities, writing stories and descriptions about pictures and trips, and they participated with and supervised children in sports related activities.

During the 37 evaluator visits, counselors were generally observed providing guidance and assistance directly to participating children. In some camps, counselors were assigned to a particular group of children for the entire day while in other camps they were assigned to work with individual or small groups of children and participated in recreational activities with large groups of children.

SUMMARY AND CONCLUSIONS

The LARC project, consisting of 17 summer day camps, involved children, youth counselors, and Temple University Veterans in Public Service (VIPS) with language-arts activities. LARC programs, located in Settlement House project sites, provided a variety of language-arts experiences with a hands on and game emphasis throughout a six-week camp session.

The intended mode of operation was fully implemented. The project's language-arts teachers used various activities and games to provide an informal approach to language-education. In many cases, LARC teachers used their own innovative ideas to motivate children to participate in the language-arts activities. LARC teachers provided exposure to and practice of communication skills for all participating pupils, in addition to training youth counselors in the use of language-arts activities. LARC encouraged children to read individually and in groups to participate in the publication of weekly camp newspapers, and to write about and discuss their LARC experiences.

The project attained three of the four objectives evaluated. LARC teachers provided the pupils with a variety of verbal functioning activities on almost a daily basis. Students were involved with the preparation of newspapers and other writing activities not normally experienced by the participating children during the summer. Picture-stimulus pretests and posttests, administered to 83 children in Grades 1-6, showed no difference in the use of words and sentences in writing samples between the beginning and end of their LARC experience. Neighborhood Youth Corps counselors were engaged constructively in tutoring, instructing, and supervising small groups and individual pupils and also participated in staff-development workshops.

The evaluators' on-site observations and interviews with teachers elicited these suggestions: (a) continuation of the two-day on-site orientations conducted by the LARC staff; (b) selection of teachers and sites by June 1 to allow more extensive planning; (c) continued close supervision of the counselors by the camp directors; and (d) retaining the services of the two coordinating teachers to share in the coordination of the project's camps.

OPERATION INDIVIDUAL
(A Component of the COMPREHENSIVE READING PROJECT)

Operation Individual is designed to help underachieving 9th and 10th graders develop competence in basic academic skills.

RATIONALE

The project operates on the assumption that the underachievement of Title-I-eligible students is attributable to their deficiency in basic skills, and inadequate study skills. On standardized tests of basic skills, they tend to score below national norms, particularly in reading. They also have difficulty in coping with the demands of high school curricula and tend to develop patterns of chronic underachievement. The project is designed to provide these students with increased supervision and individualization of instruction to improve their chances of academic success.

EXPECTED OUTCOMES

By participating in the project, students should develop competence in reading and study skills.

MODE OF OPERATION

Operation Individual is designed to give underachieving 9th- and 10th-grade students intensive, supervised aid in developing reading and/or study skills. Students are selected for participation in the project on the basis of school records indicating low reading level, low scores on a high school placement test, inadequate study skills, and/or low school achievement.

The project consists of two major components: supportive reading service and intensive service. Students receiving only supportive reading service have daily reading instruction provided by a reading teacher with individual or small-group assistance from an aide as the need arises. Students receiving intensive service are assigned to special Operation Individual block-rostered classes in social studies, English, mathematics and, in one school, science, with an aide in each classroom. In addition, the intensive-service students have daily reading instruction provided by a reading teacher with individual or small-group assistance from an aide as the need arises.

PREVIOUS FINDINGS

During 1973-1974 and 1974-1975, approximately half the students demonstrated a month-for-month gain in their Total Reading GE scores and more than 60% of them demonstrated a month-for-month gain in their Reference Skills GE scores on the Comprehensive Tests of Basic Skills. In the subject areas, ratings by teachers indicated that 83% of the students had at least "gained some additional knowledge" in content skills in three of the four subjects. However, only 26% of the students had shown at least "good" responsibility skills in three of the four subjects.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of Operation Individual focused on (a) participants' gains in reading and reference skills measured by standardized tests, and (b) in the case of students receiving intensive service, their improvement in the specified skills in each of the subject areas.

IMPLEMENTATION

The project's intended mode of operation was fully implemented in 1975-1976.

Project implementation was different in each of the three schools. At both West Catholic High for Boys and West Catholic High School for Girls, only tenth-grade students received supportive reading service from a teacher and an aide. At Hallahan High School for Girls, ninth- and tenth-grade students received supportive service only from the project. This was Hallahan's first year in the project and it was the only school which did not provide intensive service to ninth-graders.

At West Catholic High School for Boys, in the second semester 18 of the 26 students receiving supportive services were returned to their regular classes, and eight students were then added to the project. At the other two schools, students remained in the project for the entire school year.

All students receiving intensive service were assigned to special Operation Individual block-rostered classes in social studies, English, and mathematics with an aide in each classroom, in addition to receiving supportive reading service from a reading teacher and an aide. At West Catholic High School for Girls, students were also rostered to science classes, but without the services of an aide.

Classroom observations indicated that the project attempted to use available materials and resources to provide students with skills needed for success in high school.

ATTAINMENT OF OBJECTIVES

Objective 1: During the school year, participating students will improve their reading skills to the extent that 66% of those who receive intensive service will demonstrate a month-for-month gain in GE Total Reading score on the Comprehensive Tests of Basic Skills between pretest and posttest.

This objective was not attained.

The Total Reading section of the Comprehensive Tests of Basic Skills (Forms S and T, Level 4) was administered to 160 ninth-grade students in October 1974 and April 1975. The criterion was a gain of 0.6 (six months) in GE score.

The pretest GE score ranged from 2.0 to 11.9, with a mean of 6.1; the posttest scores ranged from 2.5 to 10.5, with a mean of 6.2. Gains by individual students are summarized in Table 1. Eighty-five students (53%) gained at least 0.6 year in Total Reading GE score. This was less than the expected 66%.

Objective 2: During the school year, participating students will improve their ability to use reference materials to the extent that 66% of those who receive intensive service will demonstrate a month-for-month gain in GE Reference Skills score on the Comprehensive Tests of Basic Skills between pretest and posttest.

This objective was not attained.

The Reference Skills section of the Comprehensive Tests of Basic Skills (Forms S and T, Level 4) was administered to 160 ninth-grade students in October 1974 and April 1975. The criterion was a gain of 0.6 (six months) in GE scores.

The pretest GE scores ranged from 2.0 to 12.4, with a mean of 6.7; the posttest GE scores ranged from 2.6 to 13.6, with a mean of 7.2. Gains by individual students are summarized in Table 2. Ninety-eight students (61%) gained at least 0.6 year in Reference Skills GE score. This was less than the expected 66%.

Objective 3: During the school year, participating students will improve their performance in various subjects to the extent that 66% of those who receive intensive service will obtain a minimum of one quarterly rating of at least "some additional knowledge gained" on the Student Skill Record in four of five subject areas: English, reading, science, social studies, and mathematics.

This objective was attained.

Student Skill Records were developed to provide classroom achievement information supplementing report card grades. Skill records in the subject areas were examined to determine each student's content mastery. Because science was taught in only one of the two participating schools, the criterion was adjusted so that a "some additional knowledge gained" rating was obtained in all but one subject area rather than in four of five subject areas.

Content skills were those which teachers felt were necessary for mastery of the subject matter. Each student was rated on several skills for every subject area. The rating scale noted whether the student had "gained significant additional knowledge," "gained some additional knowledge," "Made no progress," or "not applicable."

A student's content skills were considered increased if, for any of the four marking periods, he received at least the "gained some additional knowledge rating" for skills in all but one of the subject areas. This criterion was met by 153 (96%) of the 160 ninth-grade students who had received intensive service from the project.

Objective 4: During the school year, participating students will improve their performance in various subjects to the extent that 66% of those who receive intensive service will obtain a minimum of one quarterly rating of at least "good responsibility for own learning" on the Student Skill Record in four of five subject areas: English, reading, science, social studies, and mathematics.

This objective was not attained.

Skill records were developed to provide classroom achievement information supplementing report-card grades. Student Skill Records as described in Objective 3, were examined to determine each student's learning responsibility.

Responsibility skills were those which indicated accountability for each student's own learning. Students' responsibility skills in several areas within each subject were rated by the teacher as "excellent," "good," "adequate," "unsatisfactory," "no effort," or "not applicable."

A student's responsibility skills were considered adequate if, for any of the four marking periods, he received at least the "good" rating for skills in all but one of the subject areas. This criterion was met by 73 (46%) of the 160 ninth-grade students who had received intensive service from the subject. This was less than the expected 66%.

Objective 5: During the school year, participating students will improve their reading skills to the extent that 66% of those who receive supportive reading service will demonstrate a month-for-month gain in GE Total Reading score on the Comprehensive Tests of Basic Skills between pretest and posttest.

This objective was attained.

The Total Reading section of the Comprehensive Tests of Basic Skills (Forms S and T, Level 4) was administered to 257 ninth- and tenth-grade students in October 1974 and April 1975. The time between pretest and posttest was 0.6 year; therefore the criterion was a gain of 0.6 (six months) in GE score.

In reading, the pretest GE scores ranged form 2.2 to 13.6, with a mean of 7.6; the posttest scores ranged from 2.9 to 13.6, with a mean of 7.9. Gains by individual students are summarized in Table 3. One hundred eighty-two students (71%) gained at least 0.6 year in Total Reading GE score. This was more than the expected 66%.

Objective 6: During the school year, participating students will improve their ability to use reference materials to the extent that 66% of those who receive supportive reading service will demonstrate a month-for-month gain in GE Reference Skills score on the Comprehensive Tests of Basic Skills between pretest and posttest.

This objective was attained.

The Reference Skills section of the Comprehensive Tests of Basic Skills (Forms S and T, Level 4) was administered to 174 ninth- and tenth-grade students in October 1975 and April 1976. The time between pretest and posttest was 0.6 year, therefore the criterion was a gain of 0.6 (six months) in GE score.

The pretest GE scores ranged from 2.0 to 13.6, with a mean of 8.7; the posttest GE scores ranged from 3.6 to 13.6, with a mean of 9.7. Gains by individual students are summarized in Table 4. One hundred and twenty students (68%) gained at least 0.6 year in Reference Skills Ge scores. This was more than the expected 66%.

Objective 7: During the school year, participating students will improve their performance in reading to the extent that 66% of those who receive supportive reading service will obtain a minimum of one quarterly rating of at least "some additional knowledge gained" on the Student Skill Record for Reading.

This objective was attained. These content skill records were used in the same manner as described in Objective 3.

Examination of these records indicated that the criterion of receiving at least one quarterly rating of at least "some additional knowledge gained" was met by 258 of the 267 students (93%) who received supportive reading service from the project. This was more than the expected 66%.

Objective 8: During the school year, participating students will improve their performance in reading to the extent that 66% of those who receive supportive reading service will obtain a minimum of one quarterly rating of at least "good responsibility for own learning" on the Student Skill Record for Reading.

The objective was attained. These responsibility skills records were used in the same manner as described in Objective 4.

Examination of these records indicated that the criterion of receiving at least one quarterly rating of at least "good responsibility for own learning" was met by 218 of the 267 students (83%) who received supportive reading service from the project. This was more than the expected 66%.

SUMMARY AND CONCLUSIONS

The project was fully implemented. Although the specific programs differed among the three schools. The students received varying amounts of instruction and tutorial aid, designed to develop skills necessary for success in a high school curriculum.

Gains in GE score on the Total Reading and Reference Skills sections of the Comprehensive Tests of Basic Skills indicated that the intensive service component did not attain its objective of improving the students' reading skills, nor did it attain its objective of improving the students abilities to use reference materials.

However, test results indicated that the supportive service component did attain its objectives of improving the students' reading skills and also improved the students' abilities to use reference materials.

Ratings by teachers indicated that the intensive-service students were developing the skills necessary for learning the content of English, mathematics, reading, science, and social studies classes, but were not taking the desired degree of responsibility for their own learning. Ratings of supportive-service students indicated success in developing both reading skills and responsibility.

The project, therefore has been partially successful in helping students to improve their reading and study skills.

TABLE 1

GAINS IN CTBS TOTAL READING SCORE FROM OCTOBER UNTIL APRIL (0.6 YEAR) BY OPERATION-INDIVIDUAL STUDENTS RECEIVING INTENSIVE SERVICES

GE Score Gain	No. of Students	Percentage
2.1	30	19%
1.6 - 2.0	21	13
1.1 - 1.5	16	10
0.6 - 1.0	18	11
Less than 0.6	75	47
Total	160	100%

TABLE 2

GAINS IN CTBS REFERENCE-SKILLS SCORE FROM OCTOBER UNTIL APRIL (0.6 YEAR) BY OPERATION-INDIVIDUAL STUDENTS RECEIVING INTENSIVE SERVICE

GE Score Gain	No. of Students	Percentage
2.1 or more	55	33%
1.6 - 2.0	11	8
1.1 - 1.5	16	10
0.6 - 1.0	16	10
Less than 0.6	62	39
Total	160	100%

TABLE 3

GAINS IN CTBW TOTAL READING SCORE FROM OCTOBER UNTIL APRIL ().6 YEAR) BY OPERATION-INDIVIDUAL STUDENTS RECEIVING SUPPORTIVE SERVICE ONLY

GE Score Gain	No. of Students	Percentage
2.1 or more	68	26%
1.6 - 2.0	22	9
1.1 - 1.5	42	16
0.6 - 1.0	50	20
Less than 0.6	75	29
Total	257	100%

TABLE 4

GAINS IN CTBS REFERENCE-SKILLS SCORE FROM OCTOBER UNTIL APRIL (0.6 YEAR) BY OPERATION-INDIVIDUAL STUDENTS RECEIVING SUPPORTIVE SERVICE ONLY

GE Score Gain	No. of Students	Percentage
2.1 or more	84	48%
1.6 - 2.0	4	2
1.1 - 1.5	16	9
0.6 - 1.0	16	9
Less than 0.6	54	32
Total	174	100%

PRIMARY READING SKILLS CENTERS
(A Component of the COMPREHENSIVE READING PROJECT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Primary Reading Skills Centers project provides remedial reading instruction to primary-grade children with deficiencies in reading skills.

RATIONALE

The participating pupils have failed to master basic reading skills and, therefore, are reading below grade level. The project is based upon the assumption that supplementary services can ameliorate low academic achievement resulting from reading difficulties. Services are provided to improve the comprehension and word-attack skills of the participating pupils.

EXPECTED OUTCOMES

It is expected that, through participation in the project, pupils will improve in reading-comprehension and word-attack skills.

MODE OF OPERATION

First-grade pupils who lack reading-readiness skills, and other pupils who are one year below grade level (on the STS Educational Developmental Series and on the Informal Reading Inventory) are accepted into the project.

Equipment and instructional materials of many kinds are utilized for optimal development of specific skills. During the course of a lesson (20-60 minutes in length), the pupils engage in a variety of activities emphasizing individual skill development. The pupils work in small groups, with the reading teacher and an aide acting as resource persons. Each day, the reading teacher usually meets four to six instructional groups of approximately 8 to 18 pupils each.

Pupils leave the project when they are reading on grade level or when they are promoted to a grade above those served by the project.

PREVIOUS FINDINGS

Previous evaluations consistently indicated that project participants demonstrated gains in reading ability. Each year, at least 67% of the participating pupils met or exceeded the goal of gaining two instructional book levels per year, as measured by a group informal reading inventory, and there was a substantial increase from pretest to posttest in the percentage of pupils attaining mastery on the Botel Phonics Inventory.

EVALUATION OF THE CURRENT YEAR

This year's evaluation of the Primary Reading Skills Centers project focused on the degree to which participating pupils (a) improved in reading achievement, as measured by a group informal reading inventory, (b) developed their word-attack skills, as measured by the Botel Phonics Inventory, (c) developed their alphabet-recognition skills, as measured by an alphabet-recognition test in first grade, and (d) improved in reading skills measured by the California Achievement Tests' (CAT-70) Reading Vocabulary and Reading Comprehension sections.

IMPLEMENTATION

In 1975-1976 the project's intended mode of operation was fully implemented. Both Primary Reading Skills Centers were operational for the entire year. Classroom observations (in October, January and May), teacher interviews, and responses to the Primary Skills Reading Center Questionnaire indicated that there was no substantial change in operation from previous years.

Both centers were equipped with a variety of commercial and teacher-made instructional materials and audiovisual equipment designed to devleop specific reading skills. Each center was served by one paraprofessional aide.

Responses to the teacher questionnaire indicated that pupils were selected for the project on the bases of low IRI and Botel Phonics Inventory scores and classroom-teacher recommendation. The areas in which most pupils had reading difficulties were work habits, word attack skills, and sentence comprehension. Communication between project and classroom teachers included discussion of pupil problems, written reports to the classroom teacher, and notification of pupil progress on periodic testing.

Participating pupils, in groups of seven to 20, attended instructional periods of 20 to 60 minutes in a center classroom. In both centers, pupils in Grades 1 and 2 received daily instruction. Pupils in Grades 3 and 4 received instruction two to four times a week. At one center, all kindergarten pupils received instruction twice weekly.

Classroom observations revealed that the classroom organization for instruction differed greatly between the two centers. In one, the pupils spend a portion of the period in large-group instruciton, after which the class was divided in half for small-group instruction. In the other center, pupils spent most of the period working with individually prescribed materials, with both the teacher and the aide actively guiding individual pupils.

ATTAINMENT OF OBJECTIVES

Objective 1: Participating pupils in Grades 2-4 will improve their word-attack skills to the extent that there is an increase of 20 points in the percentage of pupils attaining an 80% mastery score on the Botel Phonics Inventory between September pretest and May posttest.

This objective was attained.

In September and May, the Botel Phonics Inventory was administered to the 85 participating pupils in Grads 2-4. Results are summarized in Table 1. From pretest to posttest, there was an increase of 46 points (more than the expected 20 points) in the percentage of pupils attaining mastery.

Objective 2: Participating pupils in Grades 2-4 will increase their reading-achievement levels to the extent that 90% will gain at least one book level and 60% will gain at least two book levels between September pretest and May posttest on a group informal reading inventory.

This objective was partially attained; the percentage of pupils gaining one book level exceeded the criteria, but the percentage gaining two book levels did not.

An informal reading inventory (IRI) was administered in September and May to 85 pupils in Grades 2-4. The number of pupils in each grade achieving specified gains between pretest and posttest is shown in Table 2. Ninety percent of the pupils gained at least one book level; 56% (slightly under the 60% expected) gained at least two levels.

Objective 3: Participating first-grade pupils will develop their alphabet-recognition skills to the extent that 95% will achieve a score of 50 correct on a 52-item alphabet-recognition test administered in May.

This objective was not attained.

In May, pupils in Grade 1 took a 52-item alphabet-recognition test. Twelve pupils (63%, not the expected 95%) achieved the 95% criterion score (50 items correct).

Objective 4: Participating pupils in Grades 2-4 will increase their vocabulary knowledge to the extent that there is, in one year, a one-year gain in average GE score on the Reading Vocabulary section of the CAT-70 administered each January.

This objective was not attained.

Thirty pupils in Grades 2-4 at the St. Columba center were tested in January 1975 and 1976. Results are summarized in Table 3. All grades demonstrated gains in mean GE score over last year, with an average gain of 0.8. In none of the grades was the gain equal to the expected one-year growth. Pupils at St. Stephen center were tested for the first time; comparison data will be available next year.

Objective 5: Participating pupils in Grades 2-4 will increase their reading-comprehension skills to the extent that there is, in one year, a one-year gain in average GE score on the Reading Comprehension section of the CAT-70 administered each January.

This objective was fully attained.

Thirty pupils in Grades 2-4 at St. Columba were tested in January 1975 and 1976. Results are summarized in Table 4. All grades demonstrated gains in mean GE score over last year, with an average gain of 1.13, thus exceeding the expected one-year gain. Pupils at the St. Stephen center were tested for the first time; comparison data will be available next year.

SUMMARY AND CONCLUSIONS

The Primary Reading Skills Centers project was designed to provide remedial reading instruction to primary-grade children with deficiencies in reading skills. The project's intended mode of operation was fully implemented.

Three project objectives were fully or partially attained; two objectives were not attained. The instructional reading levels of 56% of the project pupils increased at least two book levels in one year's time. Specified gains in phonics mastery were exceeded by a considerable margin. Pupils participating in the project demonstrated gains in alphabet recognition, vocabulary, and exceeded one year's gain in comprehension as measured by the California Achievement Test.

These results are significant in view of the extremely low scores at the beginning of the school year. There was an increase of 46 percentage points in the number of pupils attaining phonics mastery. Ninety percent of the pupils gained at least one book level; 56% gained at least two. Gains in vocabulary and reading comprehension were substantial, especially the latter where low pretest scores were evident. These results indicate the project is able to help pupils with more difficult reading problems improve their basic reading skills.

TABLE 1

PERCENTAGE OF PRIMARY-READING-SKILLS-CENTERS PUPILS ACHIEVING MASTERY ON BOTEL PHONICS INVENTORY

Grade	No. of Pupils	September Pretest	May Posttest	Increase in Percentage
2	34	29%	70%	41
3	23	16	83	67
4	28	32	71	39
ALL	85	27%	73%	46

TABLE 2

GAINS ON IRI BETWEEN SEPTEMBER AND MAY BY PUPILS AT PRIMARY READING SKILLS CENTERS

Grade	No. of Pupils	Pupils Making No Gain		Pupils Gaining One Level		Pupils Gaining Two or More Levels	
		N	%	N	%	N	%
2	34	4	11	12	36	18	53
3	23	2	8	7	30	14	60
4	28	3	10	10	35	15	54
All	85	9	10%	29	34%	47	56%

TABLE 3

CAT-70 READING-VOCABULARY SCORES OF PUPILS AT A PRIMARY READING SKILLS CENTER

Grade	No. of Pupils	January 1975 Mean GE Score	January 1976 Mean GE Score	Mean GE Gain
2	16	1.3	2.1	0.8
3	10	2.1	3.0	0.9
4	4	2.9	3.5	0.6
All	30	2.1	2.9	0.8

TABLE 4

CAT-70 READING-COMPREHENSION SCORES OF PUPILS
AT A PRIMARY READING SKILLS CENTER

Grades	No. of Pupils	January 1975 Mean GE Score	January 1976 Mean GE Score	Mean GE Gain
2	16	0.5	2.0	1.5
3	10	1.6	3.0	1.4
4	4	3.2	3.7	0.5
All	30	1.8	2.9	1.1

READING IMPROVEMENT THROUGH TEACHER EDUCATION
(ESEA TITLE I COMPONENT)
(A Component of the COMPREHENSIVE READING PROJECT)

The RITE project is designed to help train urban elementary school teachers to diagnose reading problems and to design and implement effective developmental reading programs. Teachers practice new techniques in their classrooms; on-site follow-up is provided by the project staff.

RATIONALE

The reading and language-arts deficiencies of Title I children are well documented. In order to help these children become successful learners, teachers should have a wide range of experience with various reading techniques and materials. Because many teachers lack this experience, the project supplements their preservice training with in-service training programs specifically designed to meet the reading needs of teachers of urban school children.

EXPECTED OUTCOMES

With the help of the project specialists, teachers should develop competence in using the Directed Reading Activity (DRA) approach, in diagnosing the individual pupil's reading needs, in prescribing independent activities for the pupil, and in utilizing efficient classroom-management techniques.

MODE OF OPERATION

RITE reading specialists provide services for teachers of Title I pupils. They also confer with principals and reading coordinators about specific needs of their schools, and help in the organization and implementation of school reading programs.

Services to teachers are based on their needs and interests, and may include conferences, observations, demonstration lessons, and workshops. Conferences are arranged to discuss problems and share information on specific techniques. Observations are provided either at the teacher's request, or at the principal's request with the teacher's approval. Observations are preceded and followed by conferences to discuss improvement of instructional techniques.

Demonstration lessons are planned in advance by a project specialist. Planning activities include at least one preliminary observation of the children and a specialist/teacher conference which prepares the teacher to watch for specific occurrences during the lesson. Each demonstration lesson is followed by a conference about the lesson and the teacher's observations.

Workshops are of three types: one, jointly planned by the project specialist and the school's reading coordinator, deals with a specific need within a school; another, planned for all teachers in several schools, deals with more general topics; the third is planned for clusters of teachers with similar needs regardless of school (such as kindergarten teachers or beginning teachers) and deals with topics of concern to these special interest groups.

Services pertaining to language development, readiness skills, and listening skills are provided to Title I kindergarten teachers by RITE kindergarten specialists.

PREVIOUS FINDINGS

Evaluation of RITE during its first year of operation was formative and focused on the implementation of services. Project records indicated that RITE was delivering the types of services which should improve teachers' skill in reading instruction. Principals' ratings of the specialists and the project as a whole indicated satisfaction with their effectiveness.

Subsequent evaluations focused on the effect of RITE services on specific teacher competencies. Results of observations, the RITE Case Study, and the RITE Teacher Rating Scale indicated that teachers receiving these services were managing their reading lessons effectively and (at least at the primary level) seemed able to make use of test results in teaching reading. With beginning teachers, the project's greatest success was in DRA implementation and reading-lesson management. There was some evidence of success in developing the beginning teachers' skills in diagnosing and prescribing and in providing varied and individualized independent reading activities.

EVALUATION OF THE CURRENT YEAR

This year's evaluation of the RITE project examined the effect of the project's services on specific teacher competencies by fall and spring administrations of formal assessment measures (observational instruments and case studies) to beginning teachers and kindergarten teachers.

IMPLEMENTATION

The project's 1975-1976 school year's intended mode of operation was fully implemented.

Project records indicated that from September to May, the seven RITE reading specialists made 973 half-day visits to participating schools. During these visits, they held 1,115 conferences with principals and school reading coordinators. They also provided 4,580 individual service contacts to teachers. Eight hundred one (17%) of these contacts were to 37 beginning teachers.

The three RITE kindergarten specialists made 531 half-day visits to kindergartens in participating schools. During these visits, they provided 944 individual service contacts to teachers. Thirty-six percent of the contacts centered on classroom organization, 32% on diagnosis, 20% on language development, and 12% on classroom routines.

RITE specialists also conducted 96 group in-service meetings. There were two full-day reading seminars for beginning teachers, 6 half-day meetings for kindergarten teachers, 6 workshops for school Reading Coordinators, and 72 individual school group meetings.

ATTAINMENT OF OBJECTIVES

Objective 1: Beginning teachers who receive RITE services during the school year will demonstrate increasing knowledge of the procedures of the DRA and increasing ability to interpret available test data as a basis for diagnostic-prescriptive teaching. This will be indicated by a statistically significant ($p<.05$) *increase from October until April in the mean score on each section of the RITE Case Study Instrument.*

This objective was partially attained.

Intermediate teachers' mean scores on both sections of the RITE Case Study increased significantly from pretest to posttest. For primary teachers, there was a significant pretest to posttest increase in scores on the Using Test Scores section, but not on the Using a DRA section.

The RITE Case Study was designed to assess teachers' knowledge of two aspects of reading instruction--implementation of a directed reading activity (DRA) and interpretation and use of test results. Both the primary and intermediate forms of the case study presented teachers with simulated situations, and they described in writing the procedures they would use in their classrooms.

The pretest was administered at the RITE beginning teachers' workshop in late September; and the posttest was administered at the March workshop.

Each individual's pretest and posttest papers (without identification) were scored by the same panel of three RITE staff members. Raters used predetermined keys to score the responses. Scores for the Using a DRA and Using Test Scores sections were the averages of the three RITE staff members' ratings for the respective sections.

The maximum possible score for the Using a DRA secton was 12. Pretest scores for 4 primary and 11 intermediate teachers ranged form 0 to 7.2; the range of posttest scores was from 1.3 to 9.7. For the Using Test Scores Section, the maximum possible score was 6. Pretest scores ranged from 0 to 3.8; the range of posttest scores was from 1.7 to 5.0. Mean scores for each section and form are presented in Table 1.

For the 11 intermediate teachers, a correlated *t* test was used to compare pretest and posttest mean scores for each test section. On both sections, the mean posttest score was significantly higher than the mean pretest score (Using a DRA, $t=5.88$, $df=10$, $p<.005$; Using Test Scores, $t=4.20$, $df=10$, $p<.005$).

Since the number of primary teachers was too small to satisfy the assumptions of the *t* test, the Randomized Test for Matched Pairs was used to compare pretest and posttest scores for this group. There was a significant difference ($p<.05$) in the distributions of pretest and posttest scores on the Using Test Scores section. There was no significant difference between the score distributions for the Using a DRA section.

Results of pretest and posttest administrations of both sections of the RITE Case Study indicated that all beginning teachers did increase in ability to interpret and use test results, but only the intermediate teachers demonstrated an increase in ability to plan a DRA.

Objective 2: During the current school year, the RITE staff will provide at least 1,800 individual service contacts to teachers in the areas of reading approaches, diagnosis and prescription, provision of varied independent activities, and reading-lesson organization and management. A service contact is defined as a scheduled conference, an observation, or a demonstration. Project staff will complete Contact Frequency Reports every two months.

This objective was attained.

Contact frequency reports, completed every two months by project staff, indicated that there were 4,580 individual service contacts to teachers.

Of these contacts 9% were classroom observations, 23% were classroom demonstrations, and 68% were scheduled conferences. Topics for these contacts were based on the individual teacher's needs and included reading approaches (45%), diagnosis and prescription (15%), independent activities (14%), and lesson organization and management (25%).

These figures indicate that RITE staff have been providing the requisite services in the designated instructional skill areas in excess of the stated criterion.

Objective 3: Kindergarten teachers receiving RITE services will be able to diagnose and prescribe for individual pupil reading-readiness needs to the extent that by the end of April, 75% of the teachers will have (a) administered the placement test of the Santa Clara Inventory of Developmental Tasks (IDT), (b) maintained the IDT profile sheets, (c) prescribed corrective activities for deficiency areas, and (d) utilized other available testing and observational data. This will be determined by evaluators' examination of classroom records and structured interviews with teachers.

This objective was attained.

During the May observations of 21 kindergartens in participationg schools, evaluators examined the classroom records and also interviewed teachers regarding their implementation of a diagnostic-prescriptive system for skill development. A score of 8 on the Diagnostic-Prescriptive section of the RITE Kindergarten Observational Rating Scale (KORS) indicated that teachers were able to diagnose and prescribe for individual pupils to the extent stated in the objective. Additional points were given for those items which were indicative of qualitative differences in the teacher's maintenance and use of a diagnostic-prescriptive system.

Sixteen (75%) of the teachers obtained scores of 8 or more on this section. Of these, 6 obtained the maximum possible score of 14.

These results indicate that kindergarten teachers, who receive RITE services, were able to diagnose and prescribe adequately for individual pupil reading-readiness needs.

Objective 4: Kindergarten teachers receiving RITE services will improve their skills in providing useful and varied activities designed to extend children's listening skills and language development. It is expected that, for 75% of the teachers, evaluators will observe improvement indicated by a higher score in April than in October on each of the following parts of the RITE Kindergarten Observational Rating Scale: (a) Story-Telling Techniques, (b) Classroom Activity Centers, (c) Language Experience Charts, and (d) Classroom Visual Displays.

This objective was partially attained.

Five (24%) of 21 observed teachers recieved posttest scores on all four relevant parts of the RITE Kindergarten Observational Rating Scale (KORS) which were higher than their pretest scores. For each of two of these sections, 75% of the teachers did receive higher ratings on the post-observation.

Evaluators observed the kindergartens of 21 participating schools in November and again in May. Each visit lasted from 2 to 3 hours. During the observations, evaluators recorded the presence or absence of indicators for this objective on the appropriate sections of KORS. General impressions were recorded anecdotally for each section. Standards for scoring each section of KORS were established by RITE staff in conjunction with the evaluators. For each of the 4 sections of KORS relevant to this objective, each teacher's pretest and posttest scores were compared.

Classroom Activity Centers and Visual Displays were the areas in which 16 (76%) teachers' posttest scores were higher than their pretest scores. Fourteen teachers had higher post-ratings on the Storytelling Techniques section, and 11 teachers' post-ratings were higher on the Language Experience Charts sections.

All teachers demonstrated improvement in at least one area, and 17 (81%) teachers improved in two or more areas, indicating that kindergarten teachers receiving RITE services did improve at least some of their skills in providing activities to extend children's listening skills and language development, although not to the expected extent.

Objective 5: Kindergarten teachers receiving RITE services will improve their skills in organizing and managing their classroom reading-readiness programs. It is expected that, for 75% of the teachers, evaluators will observe improvement indicated by a higher score in April than in October on each of the following parts of the RITE Kindergarten Observational Rating Scale: (a) Arrangement of Classroom Equipment and Use of Space, (b) Use of Organizational Mechanics Which Facilitate Multilevel Language/Listening Activities, and (c) Use of Paraprofessional Help.

Attainment of this objective could not be determined because a large number of teachers received perfect scores on relevant sections of KORS at the pre-observation. Consequently, there was no formal way to demonstrate additional growth on the part of these teachers.

Procedures for assessing the attainment of this objective were similar to those described for Objective 4.

Only 8 of the 21 teachers had the services of paraprofessionals. All were using them appropriately in November and again in May. On the Use of Organizational Mechanics section, 9 teachers received higher post-ratings; 9 had perfect scores on both observations. On the Classroom Arrangement and Use of Space section, 11 teachers received higher post-ratings; 9 had perfect scores on both observations.

Seventeen (81%) of them either made positive gains or had perfect scores for both observations on at least the two relevant KORS sections which did not include the use of aides.

Since the RITE staff's initial visits to teachers overlapped with the pre-observations and since there were few items in each relevant KORS section, it is not possible to attribute these results to the project's efforts, nor can the effects of those early RITE visits be discounted in contributing to the large number of perfect pretest scores.

SUMMARY AND CONCLUSIONS

The Rite project provided in-service training in reading instruction to elementary school teachers and helped principals and reading coordinators to organize their school reading programs.

The project s intended mode of operation was fully implemented. Seven RITE specialists provided services to administrators and regular grade teachers during half-day visits and conducted in-service meetings. As part of a new kindergarten component, three RITE kindergarten specialists provided individual service contacts to kindergarten teachers.

The RITE staff was successful in delivering services in specific reading intructional skill areas (beyond the expected extent) to individual classroom teachers. Results of pre- and post-administration of the RITE case study indicated that both primary and intermediate grade teachers increased their skills in using test results for instruction. Intermediate grade teachers also increased their skills in planning a DRA.

The results of observations of the kindergarten classrooms indicated that one of the three objectives for this component was fully attained, one was partially attained, and attainment of the third was unable to be determined. The project was most successful in helping the kindergarten teachers develop their skills in diagnosing readiness needs. It was partially successful in helping teachers develop skills in classroom organization and management and in providing activities for extending listening and language skills.

The evaluation team noted that after four years, RITE was virtually attaining its objectives in Grades 1-6. The project was running smoothly and there was good rapport among the staff and between staff and participating school personnel. RITE appears to have developed a viable model for on-site, in-service training of teachers. The project's kindergarten component, having been in operation for a shorter time, has not yet reached the same stage of development as the component serving Grades 1-6.

TABLE 1

MEAN SCORES OF A SAMPLE OF RITE BEGINNING TEACHERS ON RITE-CASE-STUDY SUBTESTS

Subtest and Form	N	September Pretest	March Posttest	Change
Planning a DRA:				
Primary Form	4	4.8	5.5	+0.7
Intermediate Form	11	2.8	7.8	+5.1*
Using Test Scores:				
Primary Form	4	2.1	4.1	+1.6*
Intermediate Form	11	1.2	3.3	+2.2*

*Statistically significant beyond the .05 level.

SUMMER READING READINESS
(A Component of the COMPREHENSIVE READING PROJECT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Summer Reading Readiness project is designed to provide formal learning experiences for two groups of children: (a) children about to enter the first grade with no kindergarten or formal preschool experiences, and (b) children who have completed the first grade with less-than-satisfactory academic achievement. The project attempts to strengthen in these children those readiness skills required for successful involvement in the relatively structured first-grade reading program.

RATIONALE

Because nonpublic schools generally do not provide formal kindergarten programs, many children entering the first grade experience unsatisfactory academic achievement. Most pupils participating in this summer project are enrolled in Philadelphia nonpublic schools. However, eligible public school pupils also attend the project. Participants generally have had no formal preschool experience designed to develop readiness skills identified as prerequisite for success in the first grade.

EXPECTED OUTCOMES

The primary goal of the project is to provide appropriate learning experiences designed to develop a stable foundation of readiness skills for children entering the first grade of formal schooling.

MODE OF OPERATION

Eligible children are recruited from target schools and screened into nonpublic school centers. They are organized into units of approximately 40 children each. Three teachers have the responsibility of developing and implementing a suitable program for each unit.

The project operates daily, from 8:45 until 11:45, during a six-week period, using instructional materials and equipment provided by the schools themselves and by previous years' Title I funds.

PREVIOUS FINDINGS

During the summer of 1972, participating children who attended with regularity made significant improvement in reading-readiness and basic reading skills. Follow-up interviews with teachers revealed that participating children differed from non-participating children in achievement levels and classroom performance in Year 1.

During the summer of 1973, the difference between mean pretest and posttest scores on the Philadelphia Readiness Test was statistically significant, indicating that the objective of developing readiness skills of pre-first-grade children had been attained.

The 1974 evaluation focused upon the development of aural comprehension skills in pre-first-year pupils and the strengthening of reading-readiness skills in underachieving first-year pupils. The expected proportion of pupils attaining mastery was not reached by either group. The appropriateness of the criteria of success and the reasonableness of the expected proportions of pupils attaining mastery were questioned. In 1975, the project's revised objectives were attained.

EVALUATION OF THE CURRENT YEAR

This year, evaluation of the Summer Reading Readiness project again focused upon the development of aural comprehension skills in pre-first-year pupils, and upon the strengthening of reading-readiness skills in underachieving first-year pupils.

IMPLEMENTATION

The project's intended mode of operation was fully implemented.

A total of 1,204 pre-first-year pupils and 517 underachieving first-year pupils from both nonpublic and public schools signed-up for the project. Of these, 1,129 pre-first-year and 444 first-year pupils attended 36 project centers each morning for the six-week period.

Each center contained sufficient instructional materials and equipment to provide relevant learning experiences for each pupil. One hundred forty-nine teachers received supervision and support from six supervisors. A number of informal observations were conducted by the Coordinator of Nonpublic School Projects and the evaluation team.

ATTAINEMENT OF OBJECTIVES

Objective 1: At the conclusion of the six-week project term, at least 60% of the pre-first-grade pupils who attend at least 75% of the project sessions will have acquired skills in aural comprehension (such as abilities to pay attention to, *organize, infer from, and retain what has been heard) as indicated by a score of 18 correct items out of 28 on Part 4, Aural Comprehension, of the Stanford Early School Achievement Test (SESAT).*

This objective was attained.

The Stanford Early School Achievement Test (SESAT) was administered to all pre-first-year pupils during the final week of the project. Scores on all four parts of the test were forwarded to the pupils' respective schools to be used as entry-level achievement data.

Only Part 4 (Aural Comprehension) was specifically related to this objective. The criterion of 18 correct items was selected because it was the mean score obtained by pupils completing a full year of public kindergarten in Philadelphia's Districts 2 and 4. In these two districts, the project operated exclusively in nonpublic schools, serving both nonpublic and public school pupils. It was expected that participants who attended a minimum number of project sessions would score as well as public school pupils who had completed a full year of kindergarten.

Aural comprehension scores were categorized according to the attendance of each pupil. Of the 1,129 pre-first-year pupils, 945 completed the SESAT. Eight hundred eleven attended at least 75% (21 days) of the project's sessions. Of these 811, 508 (62.6%) attained the mastery score of 18 items correct, exceeding the 60% specified in the objective.

Objective 2: At the conclusion of the six-week project term, at least 60% of the underachieving first-grade pupils who attend at least 75% of the project sessions will have improved their basic reading-readiness skills to the extent indicated by (a) mastery of consonants and vowels specified for their respective entry levels, such mastery recorded on the Summer Readiness Project Diagnostic Profile, and (b) recognition of at least 15 new words (or mastery of all 60 words) on the Sight Word List.

This objective was attained.

The Diagnostic Profile specified those reading-readiness skills required for a successful introduction to the first-year reading program. The profile consisted of four heirarchical skill levels, based on the premise that children develop reading-readiness skills in a specific order of difficulty. The Sight Word List included 60 words (preprimer and primer) found in most current basal reading series. Pretest ratings on the profile and word list were provided by pupils' first-year teachers; posttest ratings were recorded by project teachers.

For the 444 underachieving first-year pupils attending the project, 361 Diagnostic Profiles and 372 Sight Word Lists were completed. Of the pupils with complete records, 267 with Profiles and 280 with Word Lists attended at least 75% of the project sessions. Of them, 174 (65%) attained the mastery criterion on the Diagnostic Profile, and 172 (61.4%) attained the mastery criterion on the Sight Word List.

SUMMARY AND CONCLUSIONS

The Summer Reading Readiness project was created to provide formal preschool experiences for target-area pupils who had not developed those reading-readiness skills identified as necessary for success in first grade. Most of these children had not experienced formal kindergarten classes, and some had completed the first-grade program with less-than-satisfactory academic progress.

The current year's evaluation focused on developing aural comprehension skills in pre-first-year pupils, and strengthening reading-readiness skills in underachieving first-year pupils.

The project was fully implemented according to its intended mode of operation, and both of its stated objectives were attained. In development of aural comprehension skills, pre-first-year pupils who completed the six-week summer program performed as well as comparison pupils who had completed a full year of kindergarten. Underachieving first-year pupils strengthened those reading-readiness skills required for successful completion of a structured first-grade reading program.

COMPUTER-MANAGED INSTRUCTION

Computer-Managed Instruction (CMI) facilitates individualized competency-based instruction in reading and mathematics by applying computer technology to instructional management (diagnosis of needs, prescriptions for instruction, and frequent progress assessments) and to actual instruction at a computer terminal.

RATIONALE

The underlying philosophy of CMI recognizes the importance of individual differences in providing experiences which enable development of each individual's potential. Educators generally agree that when unique experiences are provided for each pupil, the chances of school success are enhanced. This approach has not been adopted widely because of the difficulties encountered when more than a few pupils receive instruction. Among the problems that must be overcome to implement an individualized program are management of the assorted instructional materials, the extensive variety of possible prescriptions, and the record of performance for each pupil. Computer technology provides both the structure and the flexibility to overcome these difficulties of individualization within a mass-education system.

EXPECTED OUTCOMES

The goal of the project is to raise the achievement of participating pupils in reading and in mathematics to a higher level than would normally be expected in the schools. It is expected that a high proportion of pupils will show mastery of the respective skills as they move through the instructional sequences.

Staff-development sessions and frequent classroom visits by the CMI curriculum specialists are expected to assist participating teachers in individualizing instruction in their classrooms.

MODE OF OPERATION

The CMI project includes the development and implementation of a computer-managed and computer-assisted instruction system to diagnose pupil needs, prescribe necessary instruction, assess individual progress, and manage all instructional activities in reading for Grades 1-12 and in mathematics for Grades 1-6. The School District's Mathematics Curriculum and Pupil Competencies in Reading are the core of the instructional program and provide the framework for development of the respective competency/skill objectives and related progress/need assessments (criterion-referenced tests).

In the primary-grade reading component, intended to supplement and correlate with the regular school reading programs for Grades 1-3, eligible pupils receive individualized multimedia reinforcement and remediation activities, including reading skill-development kits, workbooks, tapes, filmstrips, and simultaneous computer-terminal/cassette-player presentations. These computer presentations are composed of incremental steps of increasing complexity to allow individual pupils to work at their own rate and to minimize their frustration in learning. Daily computer-generated rosters assign instructional materials for each pupil in both comprehension and decoding. Continuous progress/need assessment is provided for each pupil through internal evaluation checks during activities "on-line" (at the computer terminal) and through external criterion-referenced tests.

Teachers schedule informal skill-development activities such as stories on filmstrips and microfiche, games, and children's literature. Teachers also tutor small groups of pupils with a common need or individual pupils with unique needs.

The secondary reading component, intended for Grades 7-12, supplements the regular school reading program by providing an individualized competency-based program which correlates with the School District's Pupil Competencies in Reading, Levels 2-14. Each level consists of several specific competencies, each of which must be mastered before the CMI pupil advances to the next level. Initially, a computer-scored diagnostic pretest, based on the School District's Criterion-Referenced Reading Tests, determines for each pupil the competencies not yet mastered (at the appropriate level). On the basis of this pretest, the computer provides an individual pupil prescription for each competency not mastered.

On-line computer-assisted instruction (CAI) is prescribed for comprehension skills in Levels 7-14; all other instruction is off-line. On completion of instruction for each competency, a five-item mastery test is taken on the computer. If the test is failed, the teacher assigns more instruction; if it is passed, the computer assigns either instruction for the next competency at that level or, if all other competencies have been mastered, the posttest for that level (identical to the pretest). For any competency not mastered on the posttest, the pupil is referred for additional instruction; if all competencies for the level have been mastered, the computer assigns the pretest for the next level.

The primary-grade mathematics component focuses on the remediation of mathematics-skill deficiencies below the participating pupils' instructional level. Groups of 15 pupils come to a mathematics skill center two hours per week. Parent volunteers assist the teacher. Generally, this component follows the structure of other computer-managed components. Diagnostic tests determine skill deficiencies. Prescriptions are generated by the computer and are used by the teacher to make individual pupil assignments. Instruction is both small-group and individual. The Drill and Practice computer program is used where possible. Mastery assessment is made individually for each skill. A criterion-referenced test, based on the Philadelphia Mathematics Evaluation Test ("the Levels Test"), is given after completion of all skills within a level.

The project's mathematics and language-arts reinforcement centers prescribe individualized instruction based on assessment of pupils' cognitive skills and learning characteristics. Generally, this component is used as a supplemental reading program in junior high and middle schools.

As the pupil progresses through the reading and/or mathematics curricula, individual pupil records are kept by the computer. Numerous computer reports are available to facilitate teachers' and administrators' examination and evaluation of pupil progress either by pupil, by class, or by school, including a report designed to be sent to each pupil's home, identifying all reading skills mastered by that pupil.

Staff development and in-class support for teachers are ongoing activities of the CMI curriculum specialists and are considered necessary to the implementation of the individualized instructional program.

PREVIOUS FINDINGS

Past evaluations of the three predecessor projects (Computer-Assisted Instruction, Instructional Management, and Teaching Basic Reading Skills--A Systems Approach) generally showed that, where the projects were appropriately implemented, participating pupils had significantly greater achievement than comparison pupils. The evaluations documented that the individualized activities did provide learning experiences which the pupils were able to master at desired rates, as indicated by both the projects' internal monitoring systems and external criterion tests.

Teachers' and pupils' attitudes toward the projects were found to be positive. In general, teachers viewed the computer as an excellent motivational device which enabled their pupils to succeed in formal learning. Also, the teachers felt that without the computer's record keeping and scheduling, individualization of instruction would not be possible in their classrooms.

EVALUATION OF THE CURRENT YEAR

Because of extensive revision of the project's secondary reading and primary mathematics components, the current evaluation included formative elements, seeking to determine the effectiveness of the various instructional sequences in having pupils attain specified rates of mastery on criterion-referenced tests. For the primary-grade reading component, in addition to determination of participants' mastery rates, comparisons with nonparticipating eligible pupils were made.

IMPLEMENTATION

By the middle of the 1975-1976 school year, the project's four components were fully implemented, following the intended mode of operation as determined by weekly observations.

A second primary-grade reading center was established and fully operational by December, serving approximately 200 eligible children in Grades 1-6. This center was moved from the Intensive Learning Center which was closed at the end of the 1974-1975 school year. Both primary-grade centers provided individualized multimedia instruction following the intended mode of operation. Computer-terminal cassette-player presentations provided participating children with a high rate of success on their initial attempts at completing the instructional sequences. Children in both centers met the established criterion for the respective instructional sequences on 80% of their first attempts in decoding and comprehension, which exceeded by approximately 10 and 30 percentile points respectively rates reported in past years. This improvement reflected revision of many instructional sequences based on internal computer reports of children's rates of success on the sequences.

Although the primary-grade reading component was developed for Grades 1-3, 24 fifth and sixth graders with severe reading difficulties at or below sixteenth percentile on CAT-Total Reading) showed that they were able to benefit from this approach. An Informal Reading Inventory (IRI) showed that these children, on the average, exceeded one year's growth from September to June (two reading levels through level 8; one thereafter). On the Sight and Sound Phonics Inventory (Form B) an average gain of more than 20 raw score points was made.

The secondary-grade reading center was fully operational by December, serving approximately 100 seventh graders. Following the intended mode of operation, the project provided diagnostic pretests, individual prescriptions, individual reading-skill progress tests, levels tests (posttests), and computer-assisted instruction to all participating pupils. A computer report was sent to each pupil's home at the end of each marking period, detailing all reading skills mastered during the respective period.

Because this was a development year for this component the respective project objectives did not focus on comparison of participating pupil achievement with that of other groups. However, examination of results of June 76's Sight and Sound Phonics Inventory scores and February 76's California Achievement Tests (CAT) revealed considerable reading achievement gains for participating pupils. Although none of the 36 pupils with both September 1975 and June 1976 Sight and Sound Phonics Inventory (Form C 60-items) scores showed mastery in Septermber, 18 attained mastery by June, with the average raw score increasing from 37.9 to 52.5. On the CAT-Total Reading, the average participant progressed from the 23rd percentile in February 1975 to the 34th percentile in February 1976. These gains were attributed to the individualized diagnostic/prescriptive approach used in the project by the center teacher.

The revised primary-grade mathematics component was piloted beginning in April, following its intended mode of operation. By year's end, project staff had completed instructional sequences for Numeration, Whole Numbers and Fractions, Levels 3-8. Sequences of Measurement, Organizing and Interpreting Data, and Geometry were nearing completion. Approximately 75 pupils received remediation of their mathematics-skill deficiencies below their instructional level. A computer report was developed and sent to each pupil's home to show what mathematics skills each child learned during the year.

The project's mathematics and language-arts reinforcement centers operated as intended. Two additional centers were opened during the school year, although the number of schools served remained four. Due to reorganization required to meet new guidelines established by the court, the number of pupils served decreased from 2,000 to less than 1,000.

Project staff continued development and revision of the various components, and provided in-class support for participating teachers in all components. Special effort was made in the secondary-grade reading and primary-grade mathematics components. These two centers were visited at least daily during the first weeks of implementation with weekly visits the remainder of the year.

ATTAINMENT OF OBJECTIVES

Objective 1: To teach primary-grade pupils the basic skills of decoding and comprehension, study skills, and appreciation for literature, so that (a) 80% of the pupils will evidence 90% mastery on the respective Read-On Criterion Tests, and (b) project pupils will achieve significantly higher ($p<.20$) mean scores than comparable nonparticipating pupils on the Sight and Sound Phonics Inventory, the Informal Reading Inventory, and the California Achievement Tests' Reading subtest.

This objective was partially attained. The percentage of pupils attaining mastery on the Read-On Criterion Tests exceeded the expectation, but project pupils generally did not show greater reading achievement than comparable nonparticipating pupils.

Summary of the project's internal computer reports which documented each project pupil's performance on the respective Read-On Criterion Tests, showed that project pupils in both centers (approximately 300 pupils) evidenced 90% mastery on 97% (833 of 860) of the tests administered as a part of the project, thus exceeding the expected 80%.

To compare project pupils' reading achievement with that of comparable nonparticipating pupils, 58 project pupils in Grades 1-3 in the already existing center were matched with pupils in another Title I school in the same district which used the same reading program. February 1975 CAT-Language Total subscores were used to match second- and third-graders; Stanford Early School Achievement Test (SESAT) Total Score to match first-graders. Both schools administered the Sight and Sound Phonics Inventory, an informal reading inventory (IRI), and the Reading subtest of the CAT as a part of their regular reading program. The Wilcoxson Matched-Pairs Signed-Ranks Test was used to test the differences between the two groups for each grade on each test. Results with probabilities to .20 were examined.

The 13 first-graders, on the average, exceeded their counterparts on the phonics inventory, Form A, (median raw scores=30 and 29; $p < .10$) and on the IRI (median reading levels=4 and 2; $p < .05$), but not on the CAT Reading subtest. Second and third graders did not excel the matched pupils on any tests. However, first- and second-grade project pupils generally exceeded one year's growth on the IRI (two reading levels to level 8; one thereafter) and showed a high rate of mastery on the phonics inventory; first- and second-graders averaged more than 30 items on the phonics inventory (Form A, 31 items); second-graders averaged more than 40 items (Form B, 54 items).

Objective 2: To teach primary-grade pupils the fundamentals of arithmetic so that 80% of the pupils will evidence 90% mastery of the respective levels of the Philadelphia Mathematics Evaluation Test.

This objective was attained.

Summary of the project's internal computer reports revealed that of 42 tests of mathematics skills taken as a part of the project, 35 (83%) were mastered (90% correct) on the first-try after instruction, thus, exceeding the expected 80% rate of mastery. Data were available in two areas: in Numeration, pupils showed mastery on 17 of 21 (81%) tests taken; in Whole Numbers, pupils showed mastery on 18 of 21 (86%) tests taken.

Objective 3: To teach intermediate- and secondary-grade pupils basic skills in reading so that 80% of the pupils will evidence 90% mastery on the respective Philadelphia Criterion-Referenced Reading Tests.

This objective was not attained; project pupils generally attained mastery at a rate less than that expected (80%).

Participating pupils received computer-managed diagnostic pretests (the basis of prescriptions for a given level), progress tests (termed "reading-skill tests"), and posttests (with subtests for each skill and taken on completion of all prescribed instruction for a level) as part of the project. For this objective, the rate of mastery (percent of pupils reaching the respective criterion for the reading-skill tests or posttest subtests on the first try after instruction) was determined for only those skills failed on the respective pretests for the given levels. The precentages reported were determined by examining the project's internal computer reports.

Of the total number of reading-skill tests taken, pupils passed 565 of 648 (72%) on the first try. By reading area, 228 of 410 (70%) decoding tests and 177 of 238 (74%) comprehension tests were passed. On the posttests, pupils passed 112 of 211 (53%) of the subtests for those skills failed on the pretest for the given levels. By area, pupils passed 83 of 148 (56%) decoding subtests and 29 of 63 (46%) comprehension subtests. However, if the posttest results are examined without discriminating between skills failed or passed on the pretest (a more commonly followed practice), project pupils passed 1,668 of 2,042 (83%) subtests on posttests taken. Also, the final pass rate, based on the proportion of pupils who eventually attained the criterion scores (not just on the first try), was virtually 100% because of the diagnostic/prescriptive approach used.

The internal computer reports for the Computer-Assisted Instruction (CAI) component showed that pupils passed 27 of 66 (41%) posttests taken (data were not available by subtest).

SUMMARY AND CONCLUSIONS

The project utilized computer technology to implement individualized instruction in reading and mathematics, thereby providing each child with unique experiences to meet his/her educational needs. Four components were in full operation by midyear: two primary-grade reading centers; a secondary-grade reading center; a primary-grade mathematics center; and four mathematics and language arts reading centers.

The project's 1975-1976 evaluation focused on the effectiveness of the various instructional sequences in having pupils attain specified rates of mastery on criterion-referenced tests; for the primary-grade reading component, comparisons with nonparticipating eligible pupils were made. Supplementary achievement data for the secondary-grade reading component were also collected.

In the primary-grade reading and mathematics components, participating pupils exceeded the expected rates of mastery on the respective criterion-referenced tests. Project pupils generally scored below the expected mastery rates in the secondary-grade reading component. However, the rates of mastery reported are significant in the following respects: (a) Rerostering in the participating Title I schools drastically lowered the prior achievement levels of participating pupils. According to the center teacher, the rates of mastery achieved by these pupils represented significant progress relative to their prior reading achievement; (b) the rates of mastery reported are for only those skills failed on the pretests for the given levels. When the results for the posttests taken in all skills for the given levels are examined, the pupils exceeded the expected 80% rate of mastery; also, the final pass rate approached 100%; (c) participating pupils' scores on both the Sight and Sound Phonics Test and the California Achievement Test Reading subtest showed large gains over the school year, indicating the effectiveness of the project's instruction.

Although only the first-graders exceeded the reading achievement of their matched counterparts in another school, participating pupils in the primary-grade reading component generally exceeded their expected growth on informal reading inventories, and on the Sight and Sound Phonics Inventory. More important, the project provided high rates of initial success for participating pupils who typically have suffered failure and frustration in many of their educational experiences.

COUNSELING SERVICES

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Each of 14 nonpublic schools is served by a team of counselors for a portion of each week. One member of the team is an educational consultant; the other is a community consultant.

RATIONALE

Many children fail to achieve their potential in school because their emotional or social problems develop to such an advanced state that adjustment and performance in school are seriously impaired. Individual diagnostic and remedial measures then become necessary to restore the children to an adequate functioning level.

The school and the home must cooperate in fostering the children's proper development. With appropriate preventive measures, many of their problems can be alleviated before they become major problems. The Counseling Services project (CSP) provides remedial and preventive services when needed by Title-I-eligible children in participating schools.

EXPECTED OUTCOMES

It is expected that project services will help to prevent the development of chronic emotional, social, or academic disability in participating children, and will help to alleviate the children's existing problems.

MODE OF OPERATION

The project works closely with teachers, principals, and parents in providing psychodiagnostic and counseling services in order to alleviate the emotional and/or academic problems which interfere with some children's adjustment in school. Direct services are provided to eligible children upon referral by their teacher, principal, or parent.

The CSP teams attempt to share mental health principles and practices (e.g., child development, classroom management) with teachers and parents to enhance the positive development of the children.

PREVIOUS FINDINGS

Evaluations prior to 1971-1972 revealed that the project was established in in 14 nonpublic schools. Questionnaire data suggested that greater community involvement and more effective counseling schedules were needed to meet the many requests for CSP services. In 1971-1972 all CSP teams provided individual testing, counseling, and consulting services for pupils with psychological problems, and small-group discussions, in-service training, and individual consultations for teachers of Grades K-3. Participating school personnel who were interviewed expressed satisfaction with the help their children received, and a desire for permanent CSP services in their schools.

In 1972-1973, two major changes were made in the project's operation: (a) rather than being restricted to lower elementary grades, the project was made available to all grades in participating schools; (b) rather than providing services on a prescribed basis, the project provided services as requested by individual schools. Nearly all staff members who were interviewed felt the project was more valuable during 1972-1973 than it had been the previous year.

Each year since 1972-1973, the project provided psychodiagnostic services for more than 350 pupils, subsequent remedial help for more than 325 pupils, and preventive psychological services for more than 2,000 pupils, 75 teachers, and 400 parents. CSP met all of its stated objectives and was enthusiastically received by pupils, parents, and teachers.

EVALUATION OF THE CURRENT YEAR

During the current school year, evaluation again focused on CSP's diagnostic, remedial, and preventive activities.

IMPLEMENTATION

The project's intended mode of operation was fully implemented in 1975-1976.

Teams were operative in all schools throughout the school year. Although a staff member left at midyear and was not replaced, the remaining team member in each of his schools was able to provide service commensurate with that of other teams.

Team members and student interns were scheduled in schools, aiming for maximal coverage. Weekly, each school averaged 5.4 person-days of counselor and/or intern time.

In addition to regular project services, the CSP teams provided a crisis-intervention service. Counselors were involved in 123 incidents which required on-the-spot attention.

The learning therapy program, with the guidance of the project's reading specialist, was greatly expanded this year, and 337 pupils were referred for this service. Of these, 191 were evaluated for reading deficiency. Seventy-two children were accepted for learning therapy. Training of paraprofessionals to help carry out the learning therapy under the direction of the counselors began in one school.

The evaluators interviewed 84 teachers and the counseling teams during half-day visits to each school. Results of these interviews indicated that the project was well-received, and rapport between the CSP teams and the staff was good in almost all schools. The most effective use of the teams appeared to be in those schools where there was open and easy communication between them and school personnel.

ATTAINMENT OF OBJECTIVES

Objective 1: During the school year, the project staff will provide psychodiagnostic testing and evaluation for at least 450 pupils referred for academic, emotional, or social problems. Project staff will complete an individual Case Record form for each pupil referred for this service.

This objective was attained; 542 children received psychodiagnostic services during the school year.

The evaluators asked CSP personnel to keep a case-record form for each referred pupil, summarizing the type of referral, methods of diagnosis and treatment, and disposition of the case. These revealed that pupils were referred to the CSP staff because of behavioral (257), academic (307), physical (35), and other (75) problems. Many were referred for more than one kind of problem.

Since some children received more than one type of service, there were 1,518 instances of psychodiagnostic service. Of these, 70% were interviews of pupils, parents, or teachers. Classroom observations accounted for an additional 8%, and psychological evaluations for 7%. The remaining 15% of the services were learning-therapy evaluations or referrals, either to an outside agency or to a project counsultant.

During March and April, the cases of 163 referred pupils were discussed by the evaluator with the pupils' respective classroom teachers. Results are presented in Table 1. Most teachers were unable to differentiate diagnostic procedures from remediation. Of the 45 responses where teachers were sufficiently familiar with the psychodiagnosis of their pupils to rate it, 43 provided ratings of either "excellent" or "good".

Objective 2: During the school year, the project staff will provide remedial counseling help to at least 375 pupils identified as having academic, emotional, or social difficulties. Project staff will complete an individual Case Record form for each pupil receiving this service.

This objective was attained; 475 pupils received remedial help during the school year.

Data summarized from case-record forms (described under Objective 1) revealed that 29% of the 1,396 remedial services provided were consultations with educators, 19% were counseling of individual students, and 15% were family counseling. Group counseling accounted for 9% of the remedial services, classroom consultations for 8%, and various tutoring services for 5%. The remaining 14% of the services were divided evenly between referrals to agencies and learning therapy.

During the interviews of teachers described under Objective 1, for 108 of the 163 pupils, teachers rated the remedial services as "excellent" or "good". The summary of these ratings are presented in Table 1.

Questionnaires were sent to the parents of 505 pupils who had been referred to the CSP teams. Of the 378 parents who responded to the questionniare, 90% indicated that the counselors had helped their children.

Objective 3: During the school year, the project staff will provide an individualized learning-therapy program for at least 50 pupils identified as having severe reading disabilities. It is expected that 50% of these pupils will gain at least one book level from pretest until posttest on an informal reading inventory. The project staff will complete an Individualized Learning Therapy Case Record form for each pupil receiving this service.

This objective was attained.

Seventy-two pupils with reading problems received individualized learning-therapy programs during the school year, and 81% of the 54 pupils who completed their learning-therapy programs gained at least one instructional level.

The individualized Learning Therapy Case Record forms were maintained for each pupil receiving this service. Data summarized from these records revealed that, on pretest and posttest informal reading inventories (administered upon entry to and exit from learning therapy), 10 pupils made no gain in instructional level, 12 gained one book level, and 32 gained two or more levels.

Objective 4: During the school year, the project staff will provide preventive psychological services (such as group discussions to foster academic motivation, self-awareness, and social interaction) to at least 2,000 pupils. Project staff will maintain activity logs of preventive psychological services listing the nature of each activity and the number of pupils involved.

This objective was attained.

Data summarized from activity logs maintained by project staff revealed that preventive psychological services were provided to 125 classes (approximately 3,750 pupils).

For 119 of these classes, the preventive services consisted of a series of two or more presentations, rather than a single event.

The most frequently occurring types of preventive services were classroom activities (41 classes) and group discussions (37 classes).

Objective 5: During the school year, the project staff will provide services such as classroom-management consultations and child-development consultations to at least 100 teachers. Project staff will maintain activity logs of services to teachers listing the nature of each activity and the number of teachers involved.

This objective was attained.

Data summarized from project logs indicated that project staff provided 79 instances of consultative and educational services to approximately 123 teachers. These services were in the areas of classroom management and child development. CSP staff attended faculty meetings in nine of the participating schools. They also provided consultative services to principals.

Objective 6: During the school year, the project staff will provide services to at least 400 parents which will include activities designed to increase the parents' knowledge of, involvement with, and skill in dealing with their children's academic and psychosocial development. Project staff will maintain activity logs of services to parents listing the nature of the activity and the number of parents involved.

This objective was attained.

Data summarized from project logs revealed that CSP staff members provided parent education services to 639 parents.

Among the 64 activities were parent discussion meetings and parent education sessions on topics concerning children's academic and psychosocial development.

SUMMARY AND CONCLUSIONS

The Counseling Services Project was fully implemented in 14 nonpublic elementary schools. It provided a variety of psychological and educational services intended to prevent the development of emotional, social, and academic problems. It also provided a variety of psychodiagnostic, remedial, casework and counseling services. In addition, the project shared mental health and child development principles and practices with teachers and parents.

In 1975-1976, the project provided psychodiagnostic and/or remedial services to more than 600 referred pupils. This is in excess of the numbers stated in project objectives. In addition, special learning-therapy programs were completed for 54 pupils, of whom 81% made at least the expected gains in reading achievement.

The project appeared to be valued by the staffs in most of the participating schools. Evaluators noted that it was most effectively used in those schools where there was open and easy communication between the CSP team and school personnel.

TABLE 1

ESTIMATES BY TEACHERS OF THE EFFECTIVENESS OF CSP SERVICES FOR PUPILS

Rating	Type of Service	
	Psychodiagnostic (For 163 of the named referred pupils for whom teachers gave a rating)	Remedial (For 163 of the named referred pupils for whom teachers gave a rating)
Excellent/Very Good	27 (17%)	62 (38%)
Good	16 (10%)	46 (28%)
Fair	0	4 (2%)
Poor	2 (1%)	4 (2%)
Don't Know/Too Soon to Tell/Not Applicable/Omitted Response	118 (72%)	47 (29%)

CREATIVE DRAMATICS

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Creative Dramatics is a staff-development project providing experiences and training which enable participants to become more effective teachers.

RATIONALE

There is a need to develop the teachers' abilities to facilitate the pupils' creativity and motivation so that pupils can more easily master their academic subjects, particularly reading and mathematics. The project has been designed to meet this need. CD is improvised drama. Pupils of CD-trained teachers have their interest stimulated through presentation of stories and poems, and through planning, acting, and evaluating the activities. This stimulation is especially important.for Title I children, who may find school neither relevant nor necessary.

EXPECTED OUTCOMES

It is expected that participating children will be helped to overcome language and reading problems through the teachers' effective use of CD techniques.

Since CD in the classroom requires direct pupil participation, the children should increase their vocabularies and their understanding of the written and spoken word.

It is also expected that the children will show greater interest in books, use the library more often, show more confidence in expressing ideas, show an enhanced self-image, develop their creativity, show greater appreciation of the arts, and show greater interest in their own culture and other cultures.

MODE OF OPERATION

The major thrust of the project is staff development for prekindergarten and elementary-school personnel in the use of creative dramatics as a teaching tool in the cognitive and affective areas.

The techniques may be used by the teacher during any part of the school day as an addition to the regular instructional format. Through dramatization, role-playing, and improvisation, each child is encouraged to use imagination in solving problems, to communicate through body movement, and to engage in self-expression. Pupils are directed to gain background information for their activities through research in related literature. Story-telling and reading assignments, related to the pupils' own sense of the dramatic, are encouraged.

The project offers 13-week staff-development workshops sponsored by various districts for new personnel including teachers, aides, counselors, speech therapists, special education personnel, librarians, and reading teachers. In addition, one-session workshops are made available at meetings of general faculty, reading teachers, principals, parents, and other groups for dissemination of project activities.

A CD Handbook, developed by the project office and including contributions from previous workshop trainees, is distributed as a guide to all who participate in the ongoing workshops.

PREVIOUS FINDINGS

Evaluations prior to 1973-1974 revealed that pupils in CD classes made higher-level, longer, more spontaneous contributions to their classes than pupils in comparison classes. Teachers in the project lectured less often and for shorter periods of time, and encouraged pupils to express themselves and participate in classroom activities more than did comparison teachers. Fifth-grade participants obtained higher scores (difference significant at the .10 level) than matched control groups on the Vocabulary subtest of the Iowa Tests of Basic Skills; however, no significant differences were found between sixth-grade CD classes and control classes on the same subtest.

Since the project's initiation, teachers trained in CD techniques have tended to incorporate those techniques into their teaching behaviors. Participating teachers have consistently expressed their support of CD ideas, techniques, activities, and materials.

EVALUATION OF THE CURRENT YEAR

Because delayed approval and reduced funding precluded autumn pretesting and observations, the current year's evaluation was based primarily upon the questionnaire responses of participants in the project's two spring workshops.

IMPLEMENTATION

The project's intended mode of operation was fully implemented in accordance with the new guidelines issued in January 1976.

A primary function of the project was to provide staff development in Creative Dramatics (CD) techniques. The CD staff conducted workshops and demonstration lessons for school faculties, staff specialty gorups, and parent groups. Two district-wide workshops were offered in the spring term to those persons paid by federal funds. The majority of these participants were classroom aides. Attendance at all workshops was voluntary. A summary of CD workshops is given in Table 1.

Innovative techniques for teaching reading, language arts, mathematics, science, drama, and self-expression were presented. Techniques were also presented for special subject areas, traditional and open classrooms, preschoolers, and retarded and handicapped children. Workshop participants were encouraged to discuss their classroom experiences using CD techniques. Although sessions sometimes lasted after the scheduled time, the workshop leaders were always available to listen and make suggestions. Useful CD materials were distributed to workshop participants.

CD workshop leaders conducted demonstrations and observations in eligible classrooms. The CD Handbook, developed by the project office and distributed to workshop participants, was used by participants to develop CD lessons.

Twenty-seven of the 30 workshop participants (90%) responded to a questionnaire at the conclusion of the workshop series. They stated that the workshops had beneficial effects for them and their students. The most useful activities learned in workshops were reported to be story dramatization, sense memory, language-arts games, improvisations in pantomime, and techniques dealing with emotions. The questionnaire also revealed that 12 participants (44%) were able to use CD techniques with some regularity.

Observations of workshop participants were selectively limited to only those who were teachers, responsible for their own classrooms. In the five observations made, pupils participated knowledgeably in the CD activities presented by their teacher.

ATTAINMENT OF OBJECTIVES

Objective 1: Sixty percent of all teachers who have completed the designated 13-to-15-week Creative Dramatics workshop will implement CD activities (e.g., games, sense memory) to reinforce the development of vocabulary, in 60% of at least five nonconsecutive classroom observations (each 40-60 minutes) between October and May of the 1975-1976 school year, as recorded on the CD Observational Checklist.

Attainment of this objective could not be determined because of midyear changes in the project. These changes, resulting from the August 1975 court order and revised state guidelines, included factors which changed eligibility criteria for both workshop participants and students to be served. In addition, there were delays in obtaining lists of eligible students. Workshops began in late February, another factor making the attainment of this objective indeterminable.

When eligibility of workshop participants was finally determined, those persons scheduled for the CD instruction were, for the most part, classroom aides who were not responsible for their own classes. This limited the evaluators' opportunities to make classroom observations.

Objective 2: Students who have been exposed to CD techniques will improve their writing skills between September and May of the 1975-1976 school year, as indicated by a significant gain ($p < .10$) in (a) number of words and (b) number of sentences in stories written in response to a locally developed picture stimulus test.

Attainment of this objective could not be determined. The 13-week training workshop for School District personnel did not begin until late February, and the participants for the most part were paraprofessionals not directly responsible for their own classrooms. Subsequent classroom follow-up by CD staff did not begin until late April. Consequently, pretests and posttests were not administered and classroom observations were minimal.

SUMMARY AND CONCLUSIONS

The Creative Dramatics project developed participants' abilities to stimulate creativity so that pupils could more easily master their reading and mathematics skills.

The current evaluation examined only the workshop component of the project using a postworkshop questionnaire.

The project's intended mode of operation, as specified by midyear guidelines, was fully implemented. The CD staff provided various in-service workshops and limited visitations to eligible classrooms for demonstration and refinement of CD techniques. Previously trained personnel and current workshop participants received all visitations.

Attainment of both project objectives could not be determined because of external problems related to eligibility of students and workshop participants. As a result of late workshop starting dates, pretests and posttests were not administered and classroom observations were minimal.

TABLE 1

SUMMARY OF CREATIVE DRAMATICS WORKSHOPS
REPORTED BY PROJECT ADMINISTRATOR

Staff-Development Activity	Number of Events	Number of Staff Members Involved
1. Thirteen-Week Workshops	2	30
2. "One-shot" Workshops for Staffs of Individual Schools	4	172
3. "One-shot" Workshops for Staff Specialty Groups	2	71
4. "One-shot" Workshops for Parents	2	55

EDUCATION IN WORLD AFFAIRS

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Education in World Affairs is a project that promotes knowledge and understanding of current world affairs and of topics related to interdependence. Guest speakers, trips, materials, and conferences are provided for students in Grade 6 and in junior and senior high school.

RATIONALE

Children should have the opportunity to acquire understandings of the world which go beyond family and local events. Target children have few opportunities to meet people from other nations and learn firsthand of their history, culture, and mores. Although books, booklets, and visual materials are used, the project emphasizes a direct, personal learning approach involving classroom visitations by foreign students, structured visits to cultural or historical centers, and carefully planned conferences which allow the children to meet and discuss issues of interest. Thus the project offers educational experiences not normally available in the regular classroom program of most inner-city schools.

EXPECTED OUTCOMES

It is expected that meetings with foreign students, visits to sites of interest, and discussions with peers will encourage curiosity, stimulate new interests, inculcate new knowledge, and build respect for other cultures and races. Students should learn about other people: what life is like in other countries, how food and dress relate to climate and customs, and how the lives and problems of people the world over are similar and interrelated.

MODE OF OPERATION

The project's elementary school component concentrates on the study of four units. Teacher sponsors who volunteer to work in the project receive training from an elementary school liaison teacher who assists the sponsors and coordinates activities. A booklet for each child, a teacher's guide, reference books, charts, and filmstrips are distributed to each class prior to the unit activities. Toward the end of the year, participating classes from each district meet and make presentations at one of the district schools. Planned experiences at cultural centers are scheduled, and guest speakers from foreign countries are invited to interact with classes at the schools.

The junior high school component concentrates on the study of four units. Volunteer teacher sponsors conduct lessons either as part of a class session or as a club activity. Booklets, books, filmstrips, charts, maps, and a teacher's guide are sent to each sponsor prior to unit initiation. A junior high school liaison teacher coordinates the various schools' activities, trips, and classroom visitations by guest speakers. At the end of the school year, the schools participate in a World Fair of cultural presentations, displays, and projects.

The senior high school component concentrates on the study of topics of international interest and concern. Guest speakers address the students at seminars held during the week and at forums conducted on Saturdays. Question and answer sessions are scheduled. Students are provided an opportunity to share ideas with peers from other ethnic backgrounds. A senior high school liaison teacher helps to plan and organize the various meetings and trips, and consults with teachers.

A special-education component, similar to the elementary school component, services eight classes of retarded children. The children study two units, attend a cultural event, and go on a planned trip. A conference for parents, sponsors, and project personnel is held to introduce the elements of this project to the parents.

PREVIOUS FINDINGS

From 1966 through 1970, project students demonstrated significantly greater knowledge of the countries studied than students who were not in the project. A device used to compare the open-mindedness of project students with that of other students indicated no significant differences.

Monitoring in 1970-1971 through 1971-1972 indicated that project-produced materials were utilized by teachers and that trips were conducted as scheduled.

In 1972-1973, teachers expressed satisfaction with the success of the pilot six-week special-education component involving nine classes of retarded children.

In 1973-1974, test results indicated that junior high school students made statistically significant gains in knowledge of information contained in the specially prepared unit booklets.

In 1974-1975, test results for elementary and junior high students showed an increased mastery in geography, which had been emphasized in newly prepared EWA materials. A locally developed cultural attitudes test produced inconclusive evidence of attitude change; this was attributed in part to problems of measuring such change over a short time period. All materials and special events were provided as scheduled.

EVALUATION OF THE CURRENT YEAR

The current evaluation of the Education in World Affairs project was designed primarily to monitor the activities and the functions of the project, as recorded in the EWA Service Log.

IMPLEMENTATION

Education in World Affairs, fully implemented according to its 1975-1976 intended mode of operation, provided effectively coordinated programs for 35 upper elementary, 28 junior high, 15 senior high, and eight special education classes in 71 public and 11 nonpublic schools. The project focused primarily on Grades 6, 7, and 11, and the educable retarded.

The project director and three liaison teachers worked together to organize special programs and trips and to prepare and disseminate books. charts, posters, filmstrips, booklets, and a Teacher's Guide that included suggested language-skill activities. All teachers who volunteered to act as project sponsors in their schools received these materials and services.

At the beginning of the project year, introductory planning workshops for each level were held at the project headquarters. Teachers in attendance were introduced to "A Declaration of Interdependence," implications of the August 1975 court order, new materials selected for the year, and suggestions for utilizing project materials as part of classroom reading programs.

The purpose of the project was to introduce participating students to the concept of world interdependence and to extend their knowledge of the important global problems of food and trade. Elementary and junior high students were taught four units each; special education groups studied three; senior high groups studied six topics prominent in the news.

The elementary and junior high programs consisted of six-week in-depth study of four international themes: One World, Food, Trade, and Interdependence. Each unit of study was provided with filmstrips, slides, study prints, background materials and enrichment books. Booklets on each of these themes were specially prepared by the EWA staff and sent to every participating student. These booklets, designed to be informal and easy to use, contained photographs, illustrations, maps, games, and puzzles to add clarity and interest to the material and to encourage the students to read. A Reading Guide for teachers was prepared in conjunction with the One World booklet that presented suggestions for teaching language arts skills that were applicable to all the booklets.

Arrangements were made for each class to take three field trips during the year to cultural, educational, and industrial centers in Philadelphia where specially prepared programs and lectures were presented to the students. The students also had the opportunity to have three guest speakers in their classroom, each of whom presented a lesson on a topic related to a unit being studied. A bus trip to New York for a tour of the United Nations headquarters and other sites of interest was provided for each participating class.

Some elementary teachers made the program a part of their social studies curriculum most included it in their enrichment reading program, while others used it in various phases of language arts. Junior high teachers either included the program as part of a class or as a club activity. The elementary classes developed original presentations which they gave at an end-of-year culminating activity held for each district.

The senior high program focused on six world issues of current importance. Each student received two subscriptions to news periodicals, and written background materials prepared by the project staff that enabled students to do in-depth study as a preparation or follow-up to the program topics. Three all-day seminars, two Saturday Morning Forums, a full-day of Model Senate Foreign Relations Committee Hearing (counted as a seminar), and a Model U.N. General Assembly and Law of the Sea conferences provided ample opportunity for students to investigate, examine and participate in discussions of important world issues using the same procedures as existing governing organizations.

Special education classes studied "One World," "Food," and "Trade." In their classrooms the teachers expanded the children's introduction to these basic concepts through the use of enrichment materials including audio-visual kits, posters, records and books provided by the project. Museum presentations specifically geared to their level were planned for each unit. The tour of the Port of Philadelphia aboard the Showboat, the United Nations-Chinatown tour in New York, and the Parent-Teacher Conference culminating program were the special highlights of this year's program.

Two additional special events were arranged this year. During a three month period (November-January) Glory Van Scott, actress, dancer, singer, playwright and authoress, visited 22 schools as a representative of Affiliate Artists, Inc. Her informal presentations were made to participating students from Grades 6-9. The second event was sponsored by EWA in conjunction with Theatre Arts for Youth and involved a special performance of the musical, "The Me Nobody Knows", for all elementary, junior high and special education students. Performances were held at the Playhouse in the Park. All participating teachers received a copy of the book The Me Nobody Knows, and a study guide which included background material and discussion questions. Students participated enthusiastically at the performance which was also attended by the evaluators.

ATTAINMENT OF OBJECTIVES

Objective 1: During the school year, participating students in Grades 6-8 will gain knowledge of the concept of interdependence among nations, similarities and differences of people in the world, and world geography, as measured by locally developed tests. Significant differences at the .10 level between pretest and posttest mean scores will be accepted as evidence of attainment.

Attainment of this objective could not be determined because participating students were not at the competency level required to read the unit materials.

In Spring 1975, a survey of participating elementary teachers revealed that 80% felt the reading level (Grade 4-5) of the EWA prepared booklets for the 1974-1975 school year was appropriate for their respective children. These teachers also indicated that the students they would be sponsoring during the next school year, 1975-1976, would be able to read and respond to new EWA materials with the same reading difficulty. As a result of this survey, new booklets and unit materials of similar difficulty were prepared and published.

However, in August 1975, the court order required changes in the selection of the EWA student participants. Elementary and junior high teachers reported that the reading materials prepared prior to the court order guidelines were now too difficult for their students. Consequently, it was decided not to test them on the booklet information.

Objective 2: Throughout the school year, project licison persons will introduce all participating students to different cultural attitudes and perspectives, thus providing them with a broader framework upon which to formulate their viewpoints. This will be done by means of trips to the United Nations, one guest speaker per unit studied, and in Grades 6-8 a supplemental classroom library, four filmstrips per class, four locally prepared booklets per student, and one book that each student may keep. Project materials will be reviewed and activities will be monitored by the evaluation team using the EWA Service Log. The observations will be cross-validated by surveying participating teachers in order to verify receipt of services and materials.

This objective was attained.

A tour of the United Nations headquarters in New York was made available to all participating classes. For all units or topics studied, presentations were made by guest speakers, selected for their background in the area being studied. They included foreign and graduate students, professors, and a State Department officer.

Each participating elementary or junior high student received four locally prepared booklets--one per unit. Although the project intended to provide one book for each student to keep, this year books relevant to the topics being studied were not available at the students' reading levels. A supplemental classroom library, including about 30 different titles and four filmstrips, was provided for each elementary or junior high classroom. Often three to five copies of a book were ordered to enable teachers to use them with small reading groups. Junior high school sponsors also received a book of classroom activities.

Packing lists were included in each order to help teachers check their shipments and report any missing materials. Through personal visits and by telephone, project liaison staff surveyed teachers and verified the receipt of materia and services for each unit. The evaluation team attended special activities and recorded all observations in the EWA Service Log. Students appeared to be attentive and well prepared for all programs.

Objective 3: Special education students who participate throughout the school year will be introduced to the "one world" concept of interdependence among nations. The project will provide a specially planned booklet on the United Nations for each student, at least two books for each student to keep, one audiovisual kit for each classroom per unit, maps, charts and study pictures, and three trips locally in addition to the United Nations trip. Project records will be used to verify the delivery of services, and observations will be made by the evaluation team using the EWA Service Log.

This objective was fully attained.

Eight special education classes were introduced to the "one world" concept of interdependence by means of two books the students kept, (one was a specially prepared booklet on the UN and One World, and one was a specially selected enrichment book.) Three local trips specially geared to their needs and a tour of the United Nations headquarters and Chinatown in New York were also provided. Every special education sponsor received an audiovisual kit for each unit and maps, charts, and study pictures to supplement the student booklets Observations by the evaluation team were recorded in the EWA Service Log; project records confirmed delivery of services.

Objective 4: During the school year, students at the senior high school level will be provided with subscriptions to news publications (e.g., Time, Newsweek, or the New York Times), and six background-information briefs prepared by project personnel to enable the students' examination of six timely international issues. Opportunities to interact firsthand with at least six experts in related fields will be provided at six educational forums and/or seminars. Attendance at forums will be open to all students; seminars will be attended by a limited number of students selected from each participating class. Observations and examination of project records will be conducted and recorded by the evaluation team using the EWA Service Log.

This objective was fully attained.

All senior high students received a half-year subscription to Newsweek and a half-year subscription to either Time or The New York Times. Background-information briefs, prepared by the project staff for each of the six international issues studied, were sent to all participating students. For each issue, guest speakers were avialable for visits to each classroom, and students had further opportunities to interact firsthand with experts in related fields at two forums and four all-day seminars including the Model Senate Foreign Relations Committee Hearings.

Using the EWA Service Log, the evaluation team observed many special events and reported "good attendance" rates and "active participation." Students' questions and comments during discussions indicated a generally high level of preparation for the programs.

Objective 5: During the school year, sponsoring teachers will be provided with one planning-workshop session (including all materials for planned activities and a guest speaker) geared to increasing their knowledge, perception, and skill in dealing with international issues, and focusing on the theme of interdependence of nations, as well as cultural attitudes and related questions which arise in class. Examination of project records and observations by the evaluation team will be recorded on the EWA Service Log and used to assess implementation.

This objective was fully attained.

At the beginning of the school year a separate planning-workshop session was held for sponsoring teachers at each level. Elementary and junior high sessions included a slide presentation by a guest speaker about "A Declaration of Interdependence" and a review of the uses of the World Affairs Council's enrichment materials in classroom reading programs. Every teacher received a Teacher's Guide for the One World Booklet. The Guide included reading skill activities that could be used with all unit booklets. Both workshops also included an explanation of theTitle I court order's impact on EWA; a review of the enrichment materials, trips, and activities; and discussion and sharing by sponsors. In addition, elementary teachers attended an end-of-year evaluation/planning session where every phase of the 1975-1976 program was discussed, next year's program was introduced, and supplemental materials were selected and evaluated.

Two workshops were held for senior high sponsors. The first workshop replicated the formats similar to the ones in which the students participated--a model United Nations and a forum seminar. An explanation of the sponsor's responsibilities, trips, activities, and the Declaration of Interdependence was made. The Director of Community Services at the World Affairs Council made a presentation about the USSR, in comparison with China, through anecdotes and personal experiences.

The second workshop was conducted by two representatives from The New York Times College and School Services on ways to use the Times in the classroom. They also explained and displayed all the supplemental materials available free to subscribing classes.

Five of the six planning-workshop sessions were attended by the evaluation team; observations were recorded on the EWA Service Log.

SUMMARY AND CONCLUSIONS

The Education in World Affairs project originated as a public school extension of the World Affairs Council to give inner-city students an opportunity to acquire factual knowledge about different cultures and world issues. A carefully planned program was developed, including materials and field experiences, to promote both openmindedness toward values and customs of other cultures and awareness of the far reaching complexity of world interdependence.

The project's 1975-1976 school year's intended mode of operation was fully implemented. Participating teachers received continuous classroom support and consultations with the EWA liaison staff. Planning sessions and conferences were conducted to inform teachers of available materials and resources for the issues to be studied. Books and materials distributed to the elementary and junior high classes were prepared and selected to reinforce and enrich reading, language and geography skills--especially the newly prepared Teachers Guide which provided activity suggestions in all reading-competency skill areas. High school students received periodicals, briefings, and lectures. Programs for special education students were structured to broaden their awareness of commonality of the world's problems. Trips to museums and other cultural centers exposed students to many factors involved in the provision of food, the organization of trade, and the necessity of interdependence among nations. Exchange students and knowledgeable travelers gave lectures, often with their own slides and artifacts, and answered questions; thereby, providing EWA students with a contemporary view of life in other places.

Observations, informal interviews, and a review of the project's records revealed that trips were taken, materials were received, and speakers arrived in classrooms and at special events as planned. Teachers' comments seemed to express enthusiasm for the activities.

Four of the five objectives were attained. The objective dealing with the acquisition of knowledge for elementary and junior high students could not be determined because selection of participants (conducted in compliance with the August 1975 court order) resulted in a discrepancy between the reading level of the students and that of the project materials. Consequently, the testing for this objective was not completed.

This project enabled students to investigate issues, gain experiences, and visit places they might never see. Teachers had the opportunity to gain information and share ideas at the planning-workshop sessions. The evaluation team concluded that the project integrated advanced practices with many of the finest available materials and activities to provide a relevant, well-planned educational experience.

ENGLISH AS A SECOND LANGUAGE--READINESS

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The ESL Readiness project is designed to provide Spanish-speaking children with kindergarten experiences structured to develop English language competency and readiness skills.

RATIONALE

The primary assumption of the project is that many first-grade Spanish-speaking children in target schools are low achievers because of poor English facility, a lack of the necessary readiness skills, and the attendant effects of poverty. Low achievement frequently continues throughout the school career of the Spanish-speaking child. The project seeks to avoid this long-term handicap by serving Spanish-speaking children while they are in kindergarten.

EXPECTED OUTCOMES

As a result of project participation, the pupils are expected to develop essential readiness and English-language skills which will enable them to succeed in first grade and, consequently, in their entire school careers.

MODE OF OPERATION

A project center is located in each of five schools which have a high percentage of Spanish-speaking pupils. Each center is staffed by one teacher who is assisted by two bilingual parent aides (parents of participating children). The teachers are trained to work with language-development programs (e.g., Distar, Let's Learn Language, Michigan Language Program) having a proven high degree of success in developing requisite skills in bilingual children. Teachers are trained also to emphasize the inquiry methods and to stimulate language development.

Classes meet for half-day sessions in an informal classroom setting. Project children receive instruction in English language and readiness skills at least three hours per day. The teachers use both English and Spanish as instructional languages. The amount of English used increases during the school year. Funds are available for visits to local institutions (e.g., Franklin Institute, Art Museum) and for other vocabulary- and concept-development experiences.

PREVIOUS FINDINGS

Previous evaluations consistently indicated that the project was partially successful in meeting its goals of developing English language competency and readiness skills. Approximately 60% of the pupils attained mastery scores on tests of readiness for first grade. Pupils also showed statistically significant gains ($p<.05$) from pretest to posttest on the Elementary School Speaking Test in English and Spanish.

EVALUATION OF THE CURRENT YEAR

This year's evaluation of the ESL Readiness project focused on the degree to which the pupils developed their readiness skills (measured by the Stanford Early School Achievement Test) and the degree to which they improved their English language skills (measured by the English subtest of the Elementary School Speaking Test in English and Spanish).

IMPLEMENTATION

In 1975-1976, the project's intended mode of operation was fully implemented. The evaluator's observations and interviews with ESL-R teachers at the beginning and the end of the school year indicated that the project's operation was similar to that of previous years.

ESL-R centers were located in five schools with a high population of Spanish-speaking children. Where space permitted, children under five years of age and/or non-Spanish speaking children were also admitted. Each center was staffed by a teacher and two bilingual aides. Four centers operated on two half-day shifts and the fifth had one half-day shift.

The ESL-R classes generally were divided into small groups for instruction in English language-readiness skills. Teachers used both English and Spanish as instructional languages. The amount of English that was used increased as the year progressed. Informal development of pupils' English language skills was stressed, and pupils also received training in perceptual, motor and mathematics-readiness skills. The teachers were involved in ongoing staff development, including service from the Reading Improvement Through Teacher Education project's kindergarten component, where they were trained to use the various readiness programs provided by the project.

A written report was sent to each pupil's parents describing progress in several skill areas. Another copy of the report was retained for school records, to provide diagnostic information for the pupil's first-grade teacher.

The Santa Clara Inventory of Developmental Tasks (IDT) was a part of the instructional program in the five centers. The IDT consists of an Observation Guide which provides guidelines for assessing children's developmental skills, and an Instructional Activities Manual which contains corresponding activities for each learning task. It was used to assess pupils' competency in language development, auditory memory and perception, and conceptual development. The teachers maintained an IDT profile sheet for each pupil, which was used as a measure of pupil development and as a basis for prescribing corrective activities in the deficiency areas.

ATTAINMENT OF OBJECTIVES

Objective 1: Project pupils will develop their readiness skills to the extent that 60% of them attain a raw score of 17 or more on Part 4 (Aural Comprehension) of the Stanford Early School Achievement Test (SESAT) administered in May.

The objective was not attained.

The criterion score applied to Part 4 of the SESAT was the mean score obtained in 1974-1975 by pupils in District 5, in which four of the five centers are located. The test was administered to 143 five-year-old project pupils in May 1976. At that time, 73 (51%) of the project pupils (less than the expected 60%) attained the criterion score (17 or higher). Project pupils' mean score in 1976 was 19, which is at the fifth stanine nationally.

Objective 2: Project pupils will improve their English language skills to the extent that there will be a significant gain ($p < .05$) from September pretest to May posttest on the Elementary School Speaking Test in English and Spanish (English subtest).

The objective was attained.

The English subtest of the Elementary School Speaking Test was administered to 147 five-year-old project children in September and in May. The mean pretest score was 30.3; the mean posttest score was 43.3. A Sandler $\underline{A}$ statistic of .001 revealed that the 13-point gain was statistically significant beyond the .05 level.

SUMMARY AND CONCLUSIONS

The ESL-R project was fully implemented and was successful in helping some of the Spanish-speaking children develop their English language and readiness skills.

Pupils in the project made significant gains in improving their English language skills as measured by the English subtest of the Elementary School Speaking Test. However, the project did not attain its readiness-skills objective. A raw score of 17 or higher on Part 4 (Aural Comprehension) of SESAT was achieved by 51% (less than the expected 60%) of the pupils. Nevertheless, the project pupils' mean score of 19 was higher than the mean score of the pupils in District 5.

ENGLISH TO SPEAKERS OF OTHER LANGUAGES

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The English to Speakers of Other Languages (ESOL) project helps pupils in Grades K-12 whose first language is not English to master English language skills. Using a staff of bilingual teachers, it emphasizes development of English speaking and listening skills.

RATIONALE

The acquisition of English as a second language has been described by Robert Lado as "acquiring the ability to use its structures within a general vocabulary under essentially the conditions of normal communication among native speakers at conversational speed."

Most of the pupils in the ESOL project lack basic skills in spoken and written English. Language instruction needs to be provided in a systematic manner because chance contacts with spoken English are usually insufficient for these children to gain needed skills. Bilingual teachers facilitate communication.

EXPECTED OUTCOMES

Pupils served by this project are expected to show marked improvement in speech production and comprehension, and to demonstrate better communicative skills in English when compared with non-ESOL pupils with similar backgrounds. It is expected that pupils will learn the patterns of everyday speech and will develop appropriate skills in reading. These pupils are expected to be able to use and understand English in normal conversational settings when their participation in the project is completed.

MODE OF OPERATION

In elementary schools, the project provides a springboard into reading and writing skills by emphasizing essential structures, idioms, and vocabulary of oral English.

At some schools, mainly elementary, pupils spend the entire day with ESOL teachers. In these all-day programs many pupils are exposed to their mother tongues. All receive instruction in mathematics, science, and social studies as a part of ESOL.

In many schools where the project is implemented, pupils are scheduled to leave regular classrooms and attend the ESOL lesson. Class size, instructional time, materials used, and homogeneity of groups vary among the participating schools. When the lesson is completed, children return to their regular classroom settings.

Facility in the second language is enhanced by drills of idiomatic speech patterns, practice in listening, and memorization of short dialogues. The ESOL project deals with English language and the thought of the speaker, and with the rules for associating the two within the system of idiomatic English. Patterns are learned through use rather than through rules. The ability to associate thought with English expression is presented through direct experience rather than through learning formal grammars or through translation from the native tongue. After pupils become familiar with the spoken language, they are taught reading and writing skills. Visual aids are frequently utilized.

PREVIOUS FINDINGS

Because special instruction is provided to all eligible pupils identified as needing service, control-group evaluation designs have not been used. In recent years, more rigorous statistical control of extraneous variables increased the probability that improvements in skills were directly related to project impact.

Evaluations since 1966-1967 have revealed improvement in pupils' English-language competencies during the school year. Parents, principals, and both project and homeroom teachers reported that ESOL was successfully meeting its objectives. Surveys and observations by evaluators were corroborated by results of tests. The Linguistic Capacity Index, the Boehm Test of Basic Concepts, and the Stanford Diagnostic Reading Test (Level I) indicated that longer contact with the project was associated with learning more English.

In addition to contact with the project, the following factors were found to be related to the acquisition of English-language skills: (a) pupil's length of time in an English-speaking environment, (b) pupil's adjustment to school, (c) school attended, (d) grade, (e) class size, (f) hours of instruction, and (g) instructional setting. For pupils in all-day, self-contained classrooms, more than 90% of the year's increase in test scores was found to occur in the first half of the year. This was in striking contrast to pupils attending project classes part-time, for whom the increase tended to be distributed evenly throughout the year.

In 1973-1974, grade, years on mainland, length of instruction, text used, and class size were found to be significantly related to test scores. When age, grade, or length of time on the mainland was controlled, pupils in the project for more than a year scored better than those with less than a year's contact with the project.

The 1974-1975 evaluation utilized simultaneous control of additional variables: grade of entry into ESOL, time on the mainland before ESOL, mother tongue, and sex. Marked improvement in aural comprehension was found to result from time in the project.

EVALUATION OF THE CURRENT YEAR

In the current year, the ESOL evaluation process included (a) updating information about pupils admitted to the project in 1974-1975 and 1975-1976, (b) developing procedures to identify pupils who no longer need service, and (c) measuring the impact of the project on pupils' production and comprehension of spoken English.

IMPLEMENTATION

In 1975-1976, the project's intended mode of operation was implemented. Early in the year, project staff completed revision of the Philadelphia ESOL Screening Test. This criterion-referenced test measures both comprehension and speech production and was used in conjunction with teacher judgement in admitting pupils into the program. Pupils who had less than perfect scores on the speaking section or who made more than one mistake on the comprehension section were to be placed in an ESOL class. Thus, test criteria tended to place pupils in the program who were on the borderline in order to permit teachers to observe these pupils in their classes and make distinctions finer than those possible in a short screening test. When a teacher disagreed with the placement indicated by the test, the teacher could override it by indicating why she felt it was incorrect.

More than 3,600 pupils in schools which have at least one teacher funded by the Title I ESOL program were screened this year. Of these, 2,667 pupils were deemed in need of service.

Information from the previous year's screening process was used to identify pupils already screened. Teachers were supplied with information about which of the 6,600 pupils on the 1974-1975 ESOL file were expected to be at the school in which they were teaching. Because many pupils enrolled in schools other than those they were expected to attend or moved during the school year, they were tested and listed on the ESOL file more than once. Evaluators concur with project staff that considerable editing of the file is necessary as the ESOL historical file goes into its third cycle. Even so, the information provided considerably reduced the extent of retesting.

A total of 672 pupils who were tested last year, but, who are currently attending a school which has at least one teacher funded by the Title I ESOL program were placed in the program this year.

This year's computerized ESOL file contains 45 pieces of information about 12,000 pupils, of whom 3,339 are currently enrolled in Title I schools and were listed as being given service in 1975-1976.

An evaluator observed 32 classes in 36 visits to project schools. Wide variation was found in the language group served and the length of instruction and class size. More than 85% of the public school pupils were getting service consistent with Pennsylvania Department of Education's recommendation. Teachers reported that of the pupils observed 30% received at least 2½ hours of ESOL instruction per day; and, an additional 45% were receiving bilingual instruction. Thus, for the sample observed, three quarters of the pupils were receiving the optimal minimal level of instruction recommended by the state to meet the needs of speakers of other languages. Of the remaining 97 pupils, 58 (15% of the total sample) were in non-public schools and 39 (10%) were in public schools.

One of the challenges faced by the program was posed by a large influx of Vietnamese and Laotian speakers. The facilities in all but three of the classes visited were rated by the evaluator as excellent or adequate. In one of the schools visited, classes meet three times a week. All other classes met daily.

Project staff and evaluators met to assess the pilot versions of the Test of Aural Comprehension (TAC) which had been developed in the previous year. Designed to measure the ability of target pupils to understand spoken English, the TAC is a curriculum-based test for pupils in Grades 3-12. TAC does not assume that pupils can read. This tape-recorded test has two forms: TAC-A and TAC-B. Each form consists of two parts. In one part the pupil selects a picture which matches a statement he hears. In the second part, the pupil hears a stem and selects one of two endings. In an item analysis of the pilot version administered in the spring of 1975, high reliability and validity was demonstrated, but it was felt that two items on each of the two forms needed revision. New items were substituted, picture options were improved by the addition of half-tones. Machine scoreable tests and new tape-recorded scripts were also produced. The new versions were taped and administered to 1,040 pupils in the target schools which had at least one teacher of English who was paid for under Title I.

ATTAINMENT OF OBJECTIVES

Objective 1: Pupils in the ESOL project for longer periods of time will show greater competence in the understanding of spoken English as measured by the Test of Aural Comprehension, administered in March 1976. A regression equation will show a statistically significant relationship (p<.10) between test score and the length of time a pupil has studied in ESOL, when sex, mother tongue, age, and length of residence on the mainland are controlled.

This objective was attained.

The TAC was administered to all pupils in 3rd grade (and above) in attendance on the test date and who studied English with a teacher paid by Title I funds.

(Pupils at participating schools who studied their mother-tongue with a Title I-supported teacher, but studied English with a teacher supported by LEA supplemented funds were not included.) The test was administered in April and May to 1,040 pupils. Multiple regression analysis indicated a positive relation between test score and length of time in ESOL that was more statistically significant than the specified .10 level. This meant that pupils' scores tended to increase with continued participation in ESOL to an extent beyond that which could be expected from the pupils' backgrounds, and their living in an English-speaking environment without studying ESOL.

Since some of the schools tested served only one of the sexes and because studies in language acquisition indicate that boys and girls may have different rates of growth, the sex of the pupils was held constant (statistically) in the multiple regression analysis. Language skills may reflect the maturation of pupils as well as the grade they attended, so age and grade were also held constant. The diversity of the ethnic groups served and the possibility that related factors might influence test score suggested that a "dummy" variable be introduced to indicate whether pupils' mother-tongue was Spanish (coded as 1) or another language (coded as 2). Finally to take account of exposure to English outside the program, the length of residence in an English-speaking area was controlled. The simultaneous regression analysis for TAC-A is shown in Table 1, with the impact of the program shown in the line labelled "Years-in-Program." Information in the column for the standardized betas is a measure of the impact of the program when other variables are taken into account. The sign of the beta weight shows that as the amount of time in ESOL increased, so did test score. The last column shows the level of significance of the betas. The significance for years-in-program is less than the specified .10 level and, thus, the beta is unlikely to be due to chance. These findings are confirmed by the analysis for TAC-B shown in Table 2.

Objective 2: Pupils newly enrolled in the project will show increased facility in speaking English, as demonstrated by a statistically significant gain ($p<.10$) in score on the 1975-1976 edition of the ESOL Screening Test between October and May.

This objective was attained.

Thirty-nine percent of pupils tested scored one or more instructional level(s) higher at year-end on the speaking section of the ESOL Screening Test than they had when first screened; 54% remained at the same instructional level; and 7% went down one level. According to the sign test, the upward trend was highly significant ($p<.001$). Because data from screening testing were used as "pre" measures, it was probable that "regression to the mean" had contributed to the very high level of significance found.

These results were obtained by evaluating 75 pupils of a random sample of 225 who were screened during 1975 and who scored below the "NO ESOL" criterion on either the comprehension or speaking sections of the test. The pupils tested were those present on the days when a program administrator visited the school to conduct the posttest. Absences, pupil mobility, and participation in special programs other than ESOL (Model A, Follow Through, Right to Read) accounted for the attrition of the sample.

Although 64% of the sample was at the beginning level early in the year, only 40% were at this level at the time of the retest. The number at the intermediate speaking level almost doubled from 17% at the first testing to 32% at the second. The percentage at the advanced level remained the same (16%), while those at the highest level (no ESOL) rose from 3% to 12%.

Objective 3: Project staff and project evaluators will establish and maintain a computer file (compatible with the School District's Pupil Directory System to permit long-term follow-up) on every pupil served by the project. Beginning in Fall 1975, the file will provide project schools with information regarding their non-English-dominant pupils.

This objective was attained.

Early in the Fall of 1975, teachers were supplied with information about 6,600 pupils tested the previous year. Teachers used this information to begin to organize their classes. Teachers and supervisors administered a revised screening test to each pupil whose first language was not English, for whom no previous screening information was received. More than 3,500 screening tests were administerd to pupils in Title I schools between October and February. This was more than anticipated. This may indicate that (a) over the summer many target pupils moved and enrolled in a school other than the one expected by school officials; (b) many target pupils entered and left the Philadelphia school system; and (c) because information was already available about many pupils, teachers were able to pay special attention to locating and testing pupils who might otherwise have been overlooked. Data have been organized in a computer-managed file which will permit project management to assess the relative importance of these three possibilities.

Computer-generated lists of all screened pupils known to be attending each school have been prepared. At year-end, teachers were asked to verify the level of service provided this year, record the level of ESOL service they expect each pupil to need in 1976-1977, and enclose information about any pupils they were serving who did not appear on the list. This information will be available for the organization of ESOL classes in Fall, 1976.

Objective 4: Project staff will formalize the procedures to be used in determining the transfer of pupils from ESOL to the regular school program. These procedures will be developed and disseminated to ESOL teachers and school administrators by December 1975.

This objective was not attained.

The formalization of procedures for mainstreaming ESOL pupils was not completed by the date specified.

Review with project staff showed that the problem of developing an appropriate set of guidelines for teachers was more complex than anticipated. Different criteria are needed depending upon the age of the pupil. It is difficult to determine the weight to be given to the different skill areas (reading, writing, aural comprehension and speaking), to standardized and criterion-referenced test scores and to teacher evaluation. To begin to solve this problem, a team of ESOL teachers is developing a scope-and-sequence analysis of ESOL which takes age into account.

Teachers' "mainstreaming" recommendations were collected when TAC tests were given. In two elementary schools, ESOL pupils completed the California Achievement Tests. During the coming year, program personnel and evaluators expect to sift through these and see if they can be used in developing a formal procedure for identifying pupils who no longer need ESOL.

SUMMARY AND CONCLUSIONS

The English to Speakers of Other Languages Project was developed to meet the needs of the large numbers of non-English-speaking children who entered school with limited English language competencies.

The diversity of program elements among sites is seen as a program strength because it probably indicates flexibility in meeting the needs of a population (a) that varies greatly in social and linguistic background and (b) that is largely composed of recent arrivals into the school district.

Both instructional objectives were attained, showing that pupils grew in listening and speaking. These language skills are the main focus of the program.

Monitoring showed that the previous years' problem of many pupils receiving less than the suggested minimum of instruction was being resolved. More than 85% of the public school pupils received service consistent with the recommendations of the Pennsylvania Department of Education. A substantial increase in the number of observed pupils who received instruction in their mother tongue was a major element in the resolution.

One of the challenges faced by the project in 1975-1976 was posed by a large influx of Laotian and Vietnamese speakers. Substantial progress was made in the screening procedures adopted this year, but much remains to be done to assure (a) that every pupil entitled to service actually receives the appropriate amount and type of service and (b) that the bulk of the screening be completed early in the school year.

Criteria still need to be developed so that the mainstreaming of ESOL pupils can be systematized. It was apparent that this is a complex issue which will require careful planning to resolve.

TABLE 1

REGRESSION OF TAC-A SCORE ON VARIOUS ESOL PUPIL CHARACTERISTICS*

Independent Variable	b	Standardized Beta	Significance
Sex	-1.141	-0.048	N.S.
Age	-0.913	-0.216	N.S.
Grade	1.609	0.330	.078
Mother Tongue	7.906	0.166	.009
Years in English-Speaking Area	1.124	0.444	.001
Years in Program	1.087	0.118	.051

*Based on 225 cases for whom all relevant information was available. Multipe R^2 for the first 5 variables, describing pupil background was .2292. This increased to .2422 when years in program was added.

TABLE 2

REGRESSION OF TAC-B SCORE ON VARIOUS ESOL PUPIL CHARACTERISTICS*

Independent Variable	b	Standardized Beta	Significance
Sex	0.985	.040	N.S.
Age	-1.690	-.461	.007
Grade	2.485	.615	.001
Mother Tongue	8.034	.177	.001
Years in English-Speaking Area	1.347	.457	.001
Years in Program	1.736	.148	.003

*Based on 322 pupils for whom all relevant information was available. Multipe R^2 for the first 5 variables, describing pupil background was .3036. This increased to .3234 when years in program was added.

FOLLOW THROUGH (ESEA TITLE I COMPONENT)

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Follow Through is a nationwide, comprehensive program for children in Grades K-3. It emphasizes planned variation in instructional approach, intensive parent and community involvement in school functioning, and special supportive services.

Additional Title I funding in Spring 1975 made possible a locally developed expansion of Follow Through to new schools and an extension of the regular program to fourth grade in schools already in the project. The expansion/extension program maintains all the essential characteristics of the nationwide parent program.

RATIONALE

The local project administration formulated a needs statement as the basis for introducing Follow Through in Philadelphia:

> Children having lived in or existed under certain conditions of the city have the need for a comprehensive program in the early years. An attempt must be made to provide them with the special support services deemed important to the learning process, i.e., medical and dental care, nutrition, social and psychological services, teacher training and active parent involvement. Children need to experience a good feeling about school and its environment derived from achieving success academically and socially. There is also a need to offer alternative instructional models to improve opportunities for these children. New approaches to early childhood education must be examined in the pragmatic settings of the local schools.

EXPECTED OUTCOMES

The broad goal of Follow Through is to improve the scholastic achievement of the participating children by meeting their academic, health, and psychosocial needs through provision of a comprehensive service program for both the children and their parents. The project aims to attain this goal by providing the following services: (a) an individualized instructional program adjusted to the ability level of the child, in order to increase his productivity, self-expression, and self-confidence; (b) a continuous in-service program for all staff, administrators, and parents; and (c) health services, diagnosis, and treatment as necessary to promote the child's educational, emotional, and physical development.

MODE OF OPERATION

Nationally, there are 22 different Follow Through models, each with a different sponsor. Seven of the models are operating in Philadelphia: Bank Street, Behavior Analysis, Bilingual, Educational Development Center (EDC), Florida Parent Education, Parent Implemented, and Philadelphia Process. Each model focuses on attainment of the project's broad goals in specific ways. Instructional variation ranges from the highly structured, specific curriculum of the Behavior Analysis model to the open classroom, nonspecific curriculum of the EDC model.

The Bank Street model combines open classroom elements with its own specific curricular materials. The Bilingual model has specific curricular elements and emphasizes simultaneous Spanish and English language development; the Florida Parent Education model is nonspecific in its curriculum but is distinguished by its use of special parent educators who train parents in home-instruction techniques in support of specific learning tasks currently being stressed in their child's classroom. The Philadelphia Process model is self-sponsored, and was established as an attempt to extend the AAAS science approach to all subject matter areas. The Parent Implemented model uses the Philadelphia Process model's curriculum, and was initially characterized by a more intensive level of parent involvement in all aspects of school functioning than was stressed in the other models. Currently, this factor is less uniquely characteristic because other models have incorporated this emphasis also.

The project's parent-involvement component is implemented by means of special policy advisory committees (PACs) in the respective schools and, more recently, through a model-management strategy whereby parents are integral members of the management and decision-making team. The model-management concept, originally part of the Behavior Analysis model, is gradually being extended to all the models and schools.

In Spring 1975 the project was extended and expanded. In each of the 18 original Follow Through schools the instructional approach (model) that had formed the K-3 program was extended into fourth grade, rather than having the program terminate in third. The expanded program introduced locally developed refinements and combinations of components from the original models into the non-Follow-Through kindergarten classes at two of the original Follow Through schools, and into all kindergarten classes at 26 schools new to the project. It also introduced a bilingual program (developed by the School District's Division of Foreign Languages Education) into the kindergartens of another "new" school. The expanded program is intended to include the next higher grade in the new schools each succeeding year until it spans at least Grades K-3. (Seventeen other schools are included in the expansion, but are funded from the School District's operating budget.)

The model refinements and combinations were adopted on the basis of previous evaluation findings, and form five "options" (a term used in lieu of "model" by the local project administrators to refer to the instructional approaches in the expanded program): Option 1 combines local refinements of Behavioral Analysis techniques with regular Behavioral Analysis curricular materials; Option 2 combines locally modified aspects of the regular Behavioral Analysis and Bank Street approaches; Option 3 (proposed but not selected by any participating schools) is a Behavioral Analysis/Bilingual combination; Option 4 combines local refinements of the Bank Street approach with most of the regular Bank Street materials; Option 5 combines locally refined Bank Street techniques with Bilingual materials.

PREVIOUS FINDINGS

From 1968-1969 through 1970-1971, the project's initial years of operation, evaluation was almost exclusively formative, to ensure that this wide-sweeping, innovative project was being established as planned.

Since 1971, evaluation focused more on providing summative data on a yearly basis, especially regarding the project's instructional, parent-involvement, and special supportive service components. With the project's large-scale expansion and extension introduced in Spring 1975, provision of formative evaluation data, while not neglected meanwhile, again assumed high priority.

A comprehensive documenting orientation has characterized the evaluation design since 1971-1972 in order to meet these informational demands. The design yields yearly cross-sectional and longitudinal data, the latter via a computerized individual pupil file.

In each of the four-year spans (paralleling the project's K-3 grade range) since the project's inception--1968-1972, 1969-1973, 1970-1974, and 1971-1975--there has been a stable retention rate of at least 60% (with a range of 60% to 75%) of the teachers and pupils in the project. This finding indicates satisfactory continuity in the treatment being provided by the project.

In achievement, as measured by citywide or national evaluation test batteries since Spring 1972, the project as a whole exhibited consistently high levels of achievement only in Grades K-1 through 1974. In 1975, however, high performance included Grades K-2, where in Total Reading, for example, the percentile ranks corresponding to mean scores were 54, 62, and 53 respectively for the three grades. The Behavior Analysis model, consistently the highest-achieving among the models, attained high K-2 levels of performance since 1974, and in 1975 showed this type of performance across the K-3 range, attaining in Total Reading, for example, percentile ranks corresponding to mean scores of 58, 79, 72, and 49 respectively. The Bank Street and Parent Implemented models have come closest to equaling the success of the Behavior Analysis model over the years.

Combined prekindergarten experience and longer exposure to Follow Through have consistently produced higher achievement levels in Grades K-3 than when prekindergarten experience was lacking. This combined effect continued to be manifest among program "graduates" in Grades 4 and 5 in 1973-1974 and 1974-1975, and in Grade 6 in 1974-1975. These findings contrast with the "washout effect" for prekindergarten experience beyond third grade usually reported in research literature.

Since the earliest years of the project, the parent-involvement component has been well implemented and increasingly successful at almost every project site. In 1974-1975 there were highly organized and well-functioning Parent Advisory Committees (PACs), and Philadelphia's unique model-management system was operational throughout the project.

The provision of special supplementary medical, dental, psychological, and social services continued to improve over the years to a high point of implementation in 1973-1974. In 1974-1975 implementation of this component declined, largely because of a decreased allocation of funds. Medical services were the most available across the years; psychological services were the least available.

In Spring 1975, survey questionnaire data revealed that a large majority of the principals and teachers at expansion sites looked favorably on the introduction of the program into their schools.

EVALUATION OF THE CURRENT YEAR

The evaluation design continued to be based on a comprehensive documentation ideal. A further step in this direction was realized with the finalization of the Classroom Observation Routine (COR) and its use in all project classes (almost 600 including the original and all expansion and extension sites) for three rounds of data collection in Spring 1976. Evaluation continued to focus on pupil achievement, pupil and teacher mobility, pupil attendance, parent involvement, and provision of special supportive services.

IMPLEMENTATION

During 1975-1976 school year, the project's intended mode of operation overall was partially implemented.

Original Program. Implementation was not satisfactory in every respect in the original nationally-affiliated Follow Through program even though some models gave evidence that implementation had improved over previous years; others seemed generally to maintain the high levels of implementation established previously. The original program (18 schools) in 1975-1976 served a population of approximately 7000 pupils in Grades K-4; the extension to fourth grade continued after its introduction late in 1975.

Original program implementation was assessed with respect to its three major components -- mode of instruction (model), parent involvement, and supportive services. Implementation data were obtained from District Liaison Assistants' monthly reports, site-visit reports by model sponsors, and classroom observation data collected using the Follow Through Classroom Observation Routine (COR). The COR is a locally developed instrument yielding information on staffing and pupil grouping patterns, instructional media, and several kinds of cognitive and non-cognitive instructional strategies. The instrument was used in the program's 248 classes (K-4) during Spring, 1976 (March through June). Each class was observed at least twice; most were observed three times. Full-time staff and ten hired observers consistently achieved 70-80% inter-observer agreement on the instrument after two weeks of intensive training.

Mode of Instruction. The Bank Street Model was well implemented. Sponsor consultants continued to visit on a weekly basis and in two of the three schools, these visits were regularly performed by the same consultant which yielded a consistent form of support to the schools. The strong social studies emphasis of the curriculum was considerably enhanced through development of natural tie-ins with Bicentennial events. Small-group instruction by teachers and aides, as well as attempts to involve all pupils in the group, were evident on a more than average basis in the course of the observations. In contrast, "teacher clarifies student response" and "teacher encourages expression of feelings or needs" only showed an average incidence of occurrence, while "supportive correction" was in evidence less than average. All three behaviors were expected to be more regularly associated with day to day operation of this model.

The Behavior Analysis Model continued to function well also, particularly in two of the three schools; the third school was affected by some sponsor-consultant scheduling problems. Program staff have requested that the consultant who was regarded as particularly effective this year serve all three schools in 1976-1977. The sponsor's pupil progress feedback system, via optical scanning routines, has often not functioned as regularly as planned also, hindering teachers from timely goal-setting for each child. The percentage of times aides, parent volunteers, and parent scholars were observed present was above average, as was the amount of time these paraprofessionals spent instructing small groups. As would also be expected of this model, the highest incidences were recorded here of teachers' monitoring pupils' independent work, expressing approval and specific praise, and giving rewards. Also to be noted was the relatively low rate of behavioral disapproval; cognitive disapprovals, however, occurred about on a par with other models.

Implementation in the Bilingual Model, through better sponsor support, was considerably improved over past years, especially in two of the three schools. The use of oral language exercises in all areas of the curriculum and the use of small group instruction was consistently emphasized. The third school has continued to have serious problems with implementation. Several meetings were held in the school to discuss the situation and give teachers an opportunity to have input into rectifying matters; but, little positive resolution of the problems has been evident. Observation data across model sites reveal that teacher small-group instruction occurred on an average basis, but that aides engaged in this type of instruction less than average. The percentage of time aides were observed present in the classroom was slightly less here than in other models. Of special note, particularly with regard to the bicultural emphasis of the model, was the fact that ethnic materials were almost never observed being employed as an instructional tool.

The EDC Model's implementation, though considered good overall, was affected by some theoretical disagreements regarding the appropriate form of emphasis on the basic skills. This model has also experienced a relatively large turnover of teachers this year. Sponsor consultant service appears to have been consistently of high quality; much consultant time was devoted to developing the skills of paraprofessionals who are a less mobile group and can provide a basic form of continuity to model operations. In observational terms, the model shows the highest rate of all models of "teacher encourages expression of feelings or needs." It would have theoretically been expected to manifest more frequent incidences than were observed of small group instruction by all staff, and requests by teachers "to draw, paint, make or build," and "to write (tell) about. . . ."

Improved scheduling of home visits by parent educators continued to produce better implementation in the Florida Parent Model. They now spend 50% of their time in home visits to instruct parents in ways to teach specific cognitive tasks on their own. The number of home visits completed this year was much higher than in previous years as a result. Only one staff developer served both schools in the model this year; plans call for each school to have a staff member with this expertise next year to better train parent scholar-educators. Observational data for this model reflected average occurrences of most categories; the model has no specific curriculum or unique instructional techniques, however, and this pattern is not surprising, nor is the less than average occurrence of small-group instruction by aides since they were expected to spend half their time in home visits.

The two models using the Philadelphia Process instructional approach (Parent Implemented and Philadelphia Process) also showed improvements in implementation, due especially to better articulation of responsibilities among instructional specialists, expediters, principals, and classroom staff. Strong emphasis was given to small group instruction this past year; consonant with this emphasis, was the scheduling of teacher conferences (a) to rearrange classrooms into three major instructional areas, reading, mathematics, and science and (b) to assign classroom staff responsibilities for each area. COR data tend to reflect the above: small group instruction by all staff occurred at a higher than average rate as did "teacher exhibits," "teacher demonstrates," the latter behaviors to be expected also in a model structured around the AAAS approach. In addition, the model was above average on requests to children "to draw, paint, make or build," "to tell about...," as well as on the behaviors "teacher clarifies student response" and "teacher encourages expression of feelings or needs."

Parent Involvement. This component was again very well implemented overall, especially as regards policy advisory committees' (PACs) being active and in terms of the model-management system becoming more securely installed throughout the program, and functioning smoothly. The level of implementation seemed to have tapered off somewhat, however, especially at some sites as can be seen below in the section on attainment of objectives. (Because one school did not submit the requested report forms, statements in the latter section are based on data from 17 schools instead of 18.)

Supportive Services. The combination of inflationary costs and retention of funding levels from the previous year had its most serious effect in the supportive services area. In addition, and in many ways related to the above circumstances, there had to be prolonged negotiations to effect satisfactory contracts, which again resulted in lack of services at the beginning of the school year. (Only 17 schools supplied data regarding attainment of objectives in this area also, and, as will be noted below, information regarding medical and dental objectives was unable to be collected in a form satisfactory to determine attainment or not.)

Expansion Program. The expansion program in 27 additional and two original program schools operated for the first time in first grade in 1975-1976. Approximately 5,000 pupils were included in the program in Grades K and 1. Implementation data were obtained from District Liaison Assistants' reports, the Program Management Assistant's report, and from COR data collected in each of the almost 200 program classes. (Again, at least two visits per class were made from March to June; in most cases, classes were observed three times.)

The program, already adversely affected by a "freezing" of Title I funds the previous year, experienced another long "freeze" period this year, which hampered the hiring of necessary staff in Grade 1 and the purchase of required instructional materials and equipment. By the end of the year, the project evidenced satisfactory implementation in kindergarten; but, first-grade implementation, attempted for the first time, was not fully satisfactory. Among the instructional approaches, the "options", which characterize the program (described above in the MODE OF OPERATION section), Option 4, a local adaptation of the Bank Street curriculum and method was the best implemented. Observation data seem to offer some confirmation of this in that this option exhibited the highest rate of occurrence of "teacher encourages expression of feelings or needs"--a behavior generally expected of this approach. Most observational categories appeared to occur at average rates overall across the options. Option 1, however, the local adaptation of Behavior Analysis curriculum and techniques, exhibited the highest evidence of expressions of approval and specific praise, and also the highest rate of giving rewards.

ATTAINMENT OF OBJECTIVES

The first ten objectives below, under the heading Pupil Achievement, rely on February 1976 citywide testing results. Stanford Early School Achievement Tests (SESAT) were administered to all kindergarten pupils in the system; California Achievement Tests (CAT) were administered to all Grade 1-12 students. Test data were available for almost 2,500 pupils in the Original Program and over 4,500 pupils in the Title I Expansion Program in Grades K and 1; for more than 4,000 Original Program pupils and more than 3,500 non-Follow Through (national comparison school) pupils in Grades 2-4. (The expanison program has, for all practical purposes, absorbed non-Follow Through sites in Grades K and 1.)

Analysis of the data is reflected in the wording of the objectives. Models and schools were variously expected to maintain stanine level with the previous year's performance; to significantly exceed it; or to significantly exceed the performance of total districts, or both total districts and district non-Follow Through groups. It should be noted that "significance" here has reference to psychometric differences in the context of parameter (descriptive statistic) concerns. F. B. Davis' formula for assessing significance in terms of the standard error of measurement of the difference between means of independent or overlapping groups was applied to the data.

Tables 1 and 2 are presented to summarize the degree to which each criterion within each of the achievement objectives, as well as the total combined criteria, were met by the groups concerned.

Data for objectives 11-17, under the heading, Supportive Services and Parent Involvement, were obtained from quarterly recording forms developed by the evaluation unit. Attainment was examined on a school by school basis. (As noted earlier, 17 rather than 18 schools supplied data.)

Objectives 18 and 19, under the heading Special Conditions, were addressed by files maintained by the evaluation unit. A manual file supplied data for Objective 18. The computerized file required to provide data for Objective 19 has not yet been updated for 1975-1976.

Objective 1: In the February 1976 citywide administration of the Stanford Early School Achievement Test (SESAT), all kindergarten pupils in each of at least five of the seven models in the regular program, and in at least 3/4 of the schools in the expansion program in each district, will obtain mean raw scores in the Letters and Sounds and Mathematics subtests that fall within the same national pupil stanine as those obtained by the total kindergarten group in the same models and schools on the SESAT administered in February 1975.

This objective was attained.

Five of the seven models (Bank Street, Behavior Analysis, Bilingual, Florida Parent, and Philadelphia Process) and 3/4 of the expansion schools scored in 1976 at least as high as the same national stanine in the kindergarten subtests as they did in 1975; a number of models and schools had higher stanines in 1976 than in 1975.

Objective 2: In the February 1976 citywide administration of the SESAT, all kindergarten pupils in each of at least five of the seven models in the regular program, and in at least 3/4 of the schools in the expansion program in each district, will obtain mean raw scores in the Letters and Sounds and Mathematics subtests that are significantly higher ($p < .05$) than those obtained by the total kindergarten group in each district in which the respective models and schools are located.

This objective was not attained.

Only 2 of the 7 models (Bank Street and Behavior Analysis) and 6 of the 29 expansion schools had scores significantly higher than their respective total districts on these kindergarten subtests. The following statements summarize the actual performance status of the groups concerned:

Four models had mean raw scores between the 80th and 86th percentiles in the Letters and Sounds subtest; one was below the 70th percentile (68th). At the same time, 9 of the 29 expansion schools were between the 80th and 96th percentiles in this subtest, while 16 schools were between the 60th and 80th; the remaining 4 schools were between the 42nd and 54th percentiles. Among the 7 districts involved, 4 were between the 80th and 86th; the remaining 3 between the 72nd and 80th percentiles.

In the Mathematics subtest, 5 models had mean raw scores between the 64th and 76th percentiles; the remaining two achieved the 50th and 58th percentiles, respectively. Among the expansion schools, 10 were between the 64th and 92nd percentiles; 9 were between the 50th and 64th; 5 between the 44th and 50th; 4 between the 30th and 40th; one was at the 22nd percentile. Of the 7 districts, 5 were between the 64th and 76th percentiles; the remaining two were at the 58th.

Objective 3: In the February 1976 citywide administration of the California Achievement Tests (CAT), all first-grade pupils in each of at least four of the seven models in the regular program, and in at least 2/3 of the schools in the expansion program in each district, will obtain mean Achievement Development Scale Scores (ADSSs) in Vocabulary or Total Reading, in Computation or Total Mathematics, and in Total Language or Spelling that fall within the same national pupil stanine as those obtained by the total first-grade group in the same models and schools on the CAT administered in February 1975.

This objective was attained.

The same-stanine expectation was met by six of the seven models (all except the Parent Implemented) and by more than 3/4 of the expansion schools. First graders in a number of the models and expansion schools scored in higher stanines in 1976 than in 1975.

Objective 4: In the February 1976 citywide administration of the CAT, all first-grade pupils in each of at least four of the seven models in the regular program, and in at least 2/3 of the schools in the expansion program in each district, will obtain mean ADSSs in Vocabulary or Total Reading, in Computation or Total Mathematics, and in Total Language or Spelling that are significantly higher ($p<.05$) than those obtained by the total first-grade group in each district in which the respective models and schools are located.

This objective was not attained.

Of the 7 models, only 3 met the criterion (Bank Street, Behavior Analysis, and Philadelphia Process). Among the 29 expansion schools, only 4 met the criterion. Of the expansion schools, however, 6 exceeded their respective districts' first graders in a reading score; 11 in a mathematics score, and 8 in a language score. Further reading, mathematics, and language performance characteristics of the groups involved are as follows:

In Total Reading, 2 models had mean scores at the 71st and 75th percentiles; 2 at the 59th; and the remaining 3 achieved the 31st, 44th and 48th percentiles. Among the expansion schools, 2 attained the 81st percentile; 5 were between the 62nd and 69th percentiles; 10 between the 51st and 59th percentiles; 8 between the 42nd and 49th percentiles; 2 were at the 36th percentile; and 2 at the 20th and 27th percentiles. Of the 7 districts, 3 were between the 62nd and 66th percentiles; the remaining 4 between the 51st and 59th percentiles.

In Total Mathematics, 3 models had mean scores between the 63rd and 71st percentile; 2 were at the 59th percentile; 2 at the 43rd and 44th percentiles. Of the expansion schools, 9 achieved scores between the 64th and 72nd percentiles; 9 between the 52nd and 59th percentiles; 9 between the 42nd and 49th percentiles; the remaining two schools achieved the 21st and 28th percentiles. Among the 7 districts, 1 was at the 64th percentile; the other 6 were between the 52nd and 59th percentiles.

In Total Language, one model achieved a mean score at the 73rd percentile; three models scored between the 51st and 60th percentiles; the remaining three were between the 31st and 37th percentiles. Among the expansion schools, 7 scored between the 60th and 71st percentiles; 8 between the 51st and 57th percentiles; 7 between the 40th and 49th percentiles; 3 between the 31st and 37th percentiles; 4 between the 22nd and 27th percentiles. Two of the 7 districts concerned scored at the 60th and 62nd percentile; three were between the 54th and 57th percentiles; the remaining 2 scored at the 46th and 49th percentiles.

Objective 5: In the February 1976 citywide administration of the CAT, all second-grade pupils in each of at least four of the seven models in the regular program will obtain mean ADSSs in Comprehension or Total Reading, in Concepts & Problems or Total Mathematics, and in Total Language or Total Battery that fall within the same national pupil stanine as those obtained by the total second-grade group in the same models on the CAT administered in February 1975.

This objective was attained.

Second graders in four of the seven models (Behavior Analysis, Bilingual, Florida Parent, and Philadelphia Process) scored at least as high as the same national stanine in 1976 as in 1975 in each of the three test areas. A number of models were in higher stanines in 1976 than in 1975.

Objective 6: In the February 1976 citywide administration of the CAT, all second-grade pupils in each of at least four of the seven models in the regular program will obtain mean ADSSs in Vocabulary or Total Reading, in Computation or Total Mathematics, and in Total Language or Spelling that are significantly higher ($p < .05$) than those obtained by the total non-Follow-Through (national comparison school) second-grade group in each district in which the respective models are located, and by all second graders in each district in which the respective models are located.

This objective was not attained.

Only one model (Parent Implemented, the single school model) met the criterion with regard to non-Follow Through schools and only two (the Bank Street and Behavior Analysis) met it in comparison with all second graders in their respective districts. However, no less than two models scored significantly higher than either reference group in any of the six test areas. Further reading, mathematics and language performance information regarding these groups follows:

In Total Reading, 2 models achieved mean scores at the 61st and 65th percentiles; 3 others were between the 50th and 56th percentiles; 2 were at the 42nd percentile. Among the 6 non-Follow Through (NFT) district groups, one was at the 72nd percentile; 3 were between the 51st and 56th percentiles; 2 were at the 29th and 46th percentiles. Of the 6 total districts concerned, 4 were between the 54th and 58th percentiles; the remaining 2 at the 48th percentile.

In Total Mathematics, 1 model was at the 62nd percentile; 5 others scored between the 51st and 57th percentiles; the remaining model was at the 45th percentile. One of the 6 NFT district groups scored at the 72nd percentile; 2 at the 51st and 57th percentiles; 2 at the 48th and 49th percentiles; the final group scored at the 30th percentile. All 6 of the total districts scored between the 51st and 59th percentiles.

In Total Language, one model was at the 69th percentile; 4 were between the 48th and 55th percentiles; the remaining two were at the 31st and 37th percentiles. One of the 6 NFT groups scored at the 75th percentile; 5 were between the 46th and 55th percentiles; the remaining group was at the 25th percentile. One of the total district groups was at the 63rd percentile; 3 others were between the 55th and 58th percentiles; the remaining 2 were at the 43rd and 48th percentiles.

Objective 7: In the February 1976 citywide administration of the CAT, all third-grade pupils in each of at least four of the seven models in the regular program will obtain mean ADSSs in Comprehension or Total Reading, in Concepts & Problems or Total Mathematics, and in Total Language or Spelling that are significantly higher ($p<.05$) than those obtained by the total third-grade group in the same models in February 1975.

This objective was attained.

Third graders in four of the seven models (Behavior Analysis, Bilingual, Florida Parent, and Philadelphia Process) met the criterion of scoring significantly higher in 1976 than in 1975 in at least one reading, one mathematics, and one language test area.

Objective 8: In the February 1976 citywide administration of the CAT, all third-grade pupils in each of at least three of the seven models in the regular program will obtain mean ADSSs in Comprehension or Total Reading, in Concepts & Problems or Total Mathematics, and in Total Language or Spelling that are significantly higher ($p<.05$) than those obtained by the total non-Follow-Through (national comparison school) third-grade group, and by all third graders, in each district in which the respective models are located.

This objective was considered partially attained.

Only one model (Parent Implemented) met the criterion completely; however, one other model (Bank Street) met the criterion with regard to non-Follow Through schools and one other model (Behavior Analysis) met it in comparison with its respective districts' third graders. Additional reading, mathematics and language performance information is as follows:

In Total Reading, 3 models achieved mean scores between the 42nd and 49th percentiles; 3 others were between the 33rd and 39th percentiles; the final model scored at the 27th percentile. In the non-Follow Through (NFT) district groups, 2 were at the 56th and 59th percentiles; 2 scored at the 45th and 47th percentiles; the remaining 2 achieved the 17th and 30th percentiles. Among the 6 total districts, 4 attained mean scores between the 44th and 47th percentiles; 2 scored at the 34th and 37th percentiles.

In Total Mathematics, 1 model achieved the 65th percentile; 2 were at the 51st and 54th percentiles; the remaining 4 were between the 34th and 38th percentiles. Two of the NFT groups achieved the 51st and 59th percentiles; 2 were at the 42nd and 47th percentiles; the remaining 2 the 15th and 29th percentiles. One of the total districts scored at the 50th percentile; 4 scored between the 40th and 47th percentiles; the remaining district achieved the 37th percentile.

In Total Language, 3 models scored at the 49th percentile; 2 were at the 34th and 36th percentiles; the remaining 2 at the 26th percentile. Among the 6 NFT groups, one scored at the 68th percentile; 2 at the 53rd and 59th percentiles; 2 at the 31st and 47th percentiles; the remaining group at the 16th percentile. Four of the 6 districts scored between the 45th and 49th percentiles; the remaining 2 at the 32nd and 34th percentiles.

Objective 9: In the February 1976 citywide administration of the CAT, all fourth-grade pupils in each of at least four of the seven models in the regular program will obtain mean ADSSs in Comprehension or Total Reading, in Concepts & Problems or Total Mathematics, and in Total Language or Total Battery that are significantly higher (p<.05) than those obtained by the total fourth-grade group in the same models in February 1975.

This objective was attained.

Fourth graders in four of the seven models (Behavior Analysis, Bilingual, EDC and Florida Parent) met the criterion, scoring significantly higher in 1976 than in 1975 in each of the three test areas.

Objective 10: In the February 1976 citywide administration of the CAT, all fourth-grade pupils in each of at least three of the seven models in the regular program will obtain mean ADSSs in Comprehension or Total Reading, in Concepts & Problems or Total Mathematics, and in Total Language or Total Battery that are significantly higher (p<.05) than those obtained by the total non-Follow-Through (national comparison school) fourth-grade group, and by all fourth graders, in each district in which the respective models are located.

This objective was partially attained.

Three of the seven models (Bank Street, Florida Parent, and Parent Implemented) met this criterion with regard to non-Follow Through schools, but only two of the models (Bank Street and Parent Implemented) met it in comparison with their respective districts' fourth graders. The following statements further summarize reading, mathematics and language performance of these respective groups:

In Total Reading, 4 of the models achieved the 34th percentile, while the remaining 3 scored between the 22nd and 27th percentile. Three of the non-Follow Through (NFT) district groups were between the 34th and 39th percentiles; the remaining 3 between the 19th and 25th percentiles. Among the 6 total districts, 5 were between the 31st and 39th percentiles; the sixth scored at the 27th percentile.

In Total Mathematics, 1 model achieved a mean score at the 34th percentile; 5 others were between the 23rd and 28th percentiles; the remaining model scored at the 19th percentile. Among the NFT groups, 2 were at the 30th and 33rd percentiles; one group was at the 27th percentile; the remaining 3 were between the 11th and 17th percentiles. One of the 6 total district groups achieved a mean score at the 30th percentile and the remaining 5 were between the 20th and 29th percentiles.

In Total Language, 3 models achieved scores between the 40th and 47th percentiles; 2 were at the 34th and 38th percentiles; the remaining 2 at the 19th and 24th percentiles. Three of the NFT groups scored between the 42nd and 47th percentiles; 2 scored at the 20th and 24th percentiles; one at the 14th percentile. Four total district groupings achieved scores between the 42nd and 46th percentiles and the remaining 2 scored at the 28th and 31st percentiles.

Objective 11: The executive policy advisory committee (PAC) at each school will involve at least 15 other parents monthly in committee work to plan parent activities, and will work jointly with at least two community-action groups on projects during the school year. Information regarding these activities is to be drawn from PAC minutes and reported by each school quarterly on forms supplied by the Follow Through Evaluation office.

This objective was partially attained by the project as a whole.

The criteria were fully met at 9 of the 17 Follow Through schools that reported, and partially met by 6 schools, of which 5 met at least the first criterion regarding PAC participation and the other school met at least the second criterion related to joint work with community groups.

Objective 12: At least 10% of the parent population for each school will attend an on-site open PAC meeting or a districtwide or citywide PAC meeting monthly; at least 20% of each school's parents will attend a Follow-Through-related meeting or affair monthly; and at least 70% of the parents in each school will attend one school meeting or affair during the school year. Schools will provide pertinent information quarterly on forms supplied by the evaluation unit.

This objective was not attained by the project as a whole.

The criteria were not fully met at any of the 17 Follow Through schools that reported. However, they were partially met at 10 schools where at least, in the case of 7 of the 10 schools, one of the three criteria was fully met and at least 50% of the required percentage on the other two criteria was met. The other 3 schools met two of the criteria fully and obtained at least 50% of the required percentage on the third criterion.

Objective 13: In each school there will be at least one hour of parent volunteer time monthly to match the number of children in the program. Information to be supplied as for Objective 12.

This objective was not attained by the project as a whole.

The criterion was fully met at 1 of the 16 Follow Through schools that reported regarding this objective. It was partially met at 4 schools where between 0.5 and 0.7 volunteer hours per pupil were provided monthly. The criterion was not met at 11 schools. However, the total number of volunteer hours in 1975-1976 exceeded 21,000 hours.

Objective 14: In each school 100% of the total enrollment will receive at least the type of screening for medical problems that is provided by school health services; no less than 80% of those pupils referred for medical assistance will be treated by either contracted or noncontracted services arranged by Follow Through personnel. Information to be provided as for Objective 12.

Attainment of this objective could not be adequately determined in 1975-1976.

School Health Services advised that school health staff were assigned special additional responsibilities regarding the inoculation of children and, therefore, were unable to regularly complete the Follow Through data forms related to this objective. The following information was able to be obtained, however:

Complete information regarding the number of children screened for medical problems was available for only 8 Follow Through schools; information for 6 months or less was available for 9 other schools. The remaining school did not provide any information on this component.

Two of these 17 schools succeeded in meeting the 100% screening criterion and 14 schools partially satisfied the criterion with percentages ranging from 55-99%. The remaining school did not meet the criterion.

No treatment figures were provided by 2 of these 17 Follow Through schools. Again information was only available for 6 months or less for 8 of the remaining 15 schools. However, given this caution, five schools succeeded in meeting the second criterion which stipulated that 80% of those children referred for medical problems would be treated. Seven schools partially satisfied the criterion with percentages ranging from 47-69%. The three remaining schools did not meet the criterion.

Objective 15: In each school 100% of the total enrollment will receive at least the type of screening for dental problems that is provided by school health services; no less than 80% of those referred for dental care will be treated through contracted or noncontracted services arranged by Follow Through personnel. Information to be provided as for Objective 12.

Attainment of this objective could not be determined in 1975-1976 because the inhibiting factors noted under the medical objective had a simultaneous effect on the evaluation team's efforts to secure dental information. The following information, nevertheless, was able to be obtained:

Complete information regarding the number of children screened for dental problems was available for only seven Follow Through schools; information for six months or less was available for seven additional schools. The four remaining schools provided no information on this component.

Of these 14 schools, 3 succeeded in meeting the 100% screening criterion and eight schools partially satisfied the criterion with percentages ranging from 61%-94%. Three schools did not meet the criterion.

In addition, seven schools satisfied the second criterion which stipulated that 80% of those children referred for care would receive treatment. Two schools partially satisfied the criterion with 55% and 50% respectively. Five schools did not meet the criterion.

Objective 16: In each school at least 80% of those pupils referred for psychological services will be examined by either contracted or noncontracted agencies; either treatment or consultation for 100% of those examined will be provided by contracted or noncontracted agencies arranged by Follow Through personnel. Information will be provided as for Objective 12.

This objective was not attained by the project as a whole.

The criteria were fully met at 3 of the 17 Follow Through schools that reported. They were partially met at 8 schools where at least one of the criteria was fully met; 4 of these schools may have met both criteria, but they did not include treatment information in their reports. Six schools did not meet either criterion.

Objective 17: At least 85% of each school's families will be visited at least once during the school year by the Follow Through school-community coordinator; the coordinator or social worker serving the school will identify all families in need of social services and will be consistently engaged in helping at least 50% of these families to secure the services needed from agencies in the community. Information to be provided as for Objective 12.

This objective was partially attained by the project as a whole.

The criteria were fully met at 8 of the 17 Follow Through schools that reported. They were partially met by the 9 other schools where at least one of the criteria was fully met. Three of the 9 schools may have met the criteria fully, but their reports did not include information for April and May.

Objective 18: To insure that teacher-retention rates are sufficiently high to allow the required continuity of treatment within Follow Through, it is expected that the rate of teacher continuance in the program for the four-year span 1972-1973 to 1975-1976 will be at least 60%. Data will be secured from School District records.

This objective was attained.

Across all models for the four-year span 1972-1976, two-hundred of the 307 teachers previously or newly assigned to the program during this four year period, remained in the program. This resulted in a 65% teacher-retention rate, which exceeded the 60% criterion.

Objective 19: To insure that pupil-retention rates are sufficiently high to provide for the program's planned longitudinal effect, it is expected that the overall rate of pupil continuance for the four years 1972-1973 to 1975-1976 will be at least 60%. Data will be secured by regular updating of the Follow Through pupil file from the School District's Pupil Directory System.

Attainment of this objective could not be determined for this report. Its determination requires a complete update of the computerized individual pupil file, not yet accomplished by the Office of Data Processing. (Previous four-year spans, through 1971-1975, consistently showed pupil-retention rates of at least 60%.)

SUMMARY AND CONCLUSIONS

The original, nationally affiliated Follow Through project has now been in operation for eight years in kindergarten, seven in first grade, six in second, and five in third grade. (Two of the 18 schools entered the project a year after the others and consequently have had one year less experience in the program.) Since Spring 1975, a locally developed Follow Through expansion program funded under Title I was introduced at the kindergarten level in 27 schools new to the project, and in the remaining classes at two of the original program schools. The expansion program operated at both kindergarten and first grade in 1975-1976 and is planned to include second grade in 1976-1977. In addition to the expansion program, further Title I funding allowed an extension of the original program to fourth grade, which was also initially implemented in Spring 1975.

In the regular Follow Through program, the Bank Street Model was well implemented, the Behavior Analysis Model maintained a very high level of functioning in two of its three schools, and the Bilingual Model continued to improve in implementation in two of its three schools. The EDC Model was well implemented in general, but experienced some disagreement over the type of stress to be given to basic skills. The Florida Parent, Parent Implemented, and Philadelphia Process Models continued to show improvements in all areas of implementation.

In the expansion program, a "freezing" of Title I funds plagued implementation, particularly affecting the newly introduced program operations in first grade. A local adaptation of Bank Street curriculum and method was the best implemented option at both the kindergarten and first-grade levels.

Seven of the 10 achievement objectives (focused on both regular and expansion programs) were at least partially attained. Fully-attained were the five objectives having to do with maintenance of basic skill levels in Grades K-2 and improved performance over the previous year in Grades 3 and 4. The two objectives dealing with project pupils' performance in Grades 3 and 4 in comparison with that of district non-Follow-Through groups and total districts were partially attained. The three objectives not attained concerned comparative performance in Grades K-2 of project pupils and total districts. In this latter respect it should be noted, however, that most models and most of the expansion schools, while not exceeding their respective total districts' performance at Grade K-1 according to the criteria in the objectives, were very much on a par with the level of performance of the latter which tended to be consistently (in many cases also considerably) above the 50th percentile. A similar observation, though the level of performance involved is somewhat lower, could be made regarding model performance in Grade 2 in relation to district comparison groups and total districts. As in the past, the Bank Street and Behavior Analysis Models were the highest-achieving overall in the original program. In 1975-1976 the Philadelphia Process Model generally exceeded the Parent Implemented Model, which in the past had ranked third among the models in performance. In the expansion program the local adaptation of Behavior Analysis materials and methods (Option 1) seemed to perform somewhat higher than the other options.

The parent-involvement component continued to be well implemented, although there was little consistent evidence of success on the criteria included in the three applicable objectives.

Inflation, combined with no increase in funding over the previous year, contributed to lower levels of implementation of supportive services in 1975-1976. Performance data regarding medical and dental services were not consistently available to the evaluation team, because of special non-program demands placed on school health staff.

Teacher-retention rates remained more than high enough to insure program continuity. Pupil continuance rates, not yet available, were expected to remain at a level conducive to the program's intended longitudinal effect.

The regular program and the expansion program functioned well overall, in spite of funding problems. In the regular program, the highest-achieving models continued to be Bank Street and Behavior Analysis followed by Philadelphia Process and Parent Implemented. The local adaptation of the Behavior Analysis Model (Option 1) was somewhat superior in performance to the other options.

TABLE 1

NUMBER OF FOLLOW-THROUGH MODELS (N=7) AND EXPANSION SCHOOLS (N=29) WHOSE MEAN SESAT SCORES MET CRITERIA FOR OBJECTIVES APPLICABLE TO KINDERGARTEN

Criterion[1]	Letters & Sounds	Mathematics	Models/Schools Meeting Criterion on Both Subtests
Models in Same National Stanine in 1976 as in 1975 Testing	5	7	5*
Schools in Same National Stanine in 1976 as in 1975 Testing	26	22	22*
Models Significantly Higher than Respective Total Districts	3	3	2
Schools Significantly Higher than Respective Total Districts	6	8	6

[1] Each criterion compares scores obtained by pupils at the same grade level.

*This portion of the applicable objective was attained.

TABLE 2

NUMBER OF FOLLOW-THROUGH MODELS (N=7) AND EXPANSION SCHOOLS (N=29) WHOSE MEAN CAT SCORES MET CRITERIA FOR OBJECTIVES APPLICABLE TO GRADES 1-4

Criterion[1]	Vocabulary				Comprehension				Total Reading				Computation				Concepts & Problems				Total Mathematics			
	Grade				Grade				Grade				Grade				Grade				Grade			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Models in Same National Stanine in 1976 as in 1975 Testing	5	-	-	-	-	6	-	-	4	6	-	-	7	-	-	-	-	4	-	-	6	4	-	-
Schools in Same National Stanine in 1976 as in 1975 Testing	23	--	--	--	--	--	--	--	24	--	--	--	27	--	--	--	--	--	--	--	27	--	--	--
Models Significantly Higher in 1976 than in 1975 testing	-	-	-	-	-	-	5	4	-	-	4	4	-	-	-	-	-	-	3	6	-	-	4	6
Models Significantly Higher than District Comparison Groups	-	3	-	-	-	-	2	3	-	3	2	3	-	4	-	-	-	-	4	4	-	4	5	4
Models Significantly Higher than Respective Total Districts	2	2	-	-	-	-	3	2	3	4	3	2	5	4	-	-	-	-	3	3	4	3	3	3
Schools Significantly Higher than Respective Total Districts	6	--	--	--	--	--	--	--	5	--	--	--	11	--	--	--	--	--	--	--	11	--	--	--

(Table 2 continues)

TABLE 2 (Continued)

NUMBER OF FOLLOW-THROUGH MODELS (N=7) AND EXPANSION SCHOOLS (N=29) WHOSE MEAN CAT SCORES MET CRITERIA FOR OBJECTIVES APPLICABLE TO GRADES 1-4

Criterion[1]	Total Language Grade				Spelling Grade				Total Battery Grade				Models/Schools Meeting Criterion across All Required Scores			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Models in Same National Stanine in 1976 as in 1975 Testing	4	6	-	-	5	-	-	-	-	5	-	-	6*	4*	-	-
Schools in Same National Stanine in 1976 as in 1975 Testing	22	--	--	--	25	--	--	--	-	--	--	--	23*	--	--	--
Models Significantly Higher in 1976 than in 1975 Testing	-	-	4	6	-	-	4	-	-	-	-	6	-	-	4*	4*
Models Significantly Higher than District Comparison Groups	-	3	2	4	-	2	2	-	-	-	-	5	-	1	2	3*
Models Significantly Higher than Respective Total Districts	3	2	2	2	4	4	2	-	-	-	-	2	3	2	2	2
Schools Significantly Higher than Respective Total Districts	8	--	--	--	3	--	--	--	--	--	--	--	4	--	--	--

[1] Each criterion compares scores obtained by pupils at the same grade level.

*This portion of the applicable objective was attained.

INSTITUTIONS FOR NEGLECTED AND DELINQUENT CHILDREN

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

This Title I project consists of the separate programs of 10 different custodial care institutions.

RATIONALE

Many pupils under the care of institutions participating in this project are from culturally deprived backgrounds; their basic skills in reading, mathematics, and other subjects lag far behind the national norms for their ages and grade levels. Therefore, Title-I-eligible institutionalized pupils who either attend school within the institution or attend public or private schools receive additional reading and/or mathematics instruction. They may also receive other services related to those subjects.

EXPECTED OUTCOMES

It is expected that participating children will improve in reading and/or mathematics skills. In addition, it is hoped that the children will improve in their attitudes toward themselves and others, and in social skills facilitating acceptable interaction with both adults and peers.

MODE OF OPERATION

There is no single mode of operation for the institutions; each of them generates its own program. The various modes of operation, some of which reflect changes required by midyear revision of state guidelines for institutional projects, are described briefly in the following paragraphs.

Association for Jewish Children. The major emphasis of this program is on tutoring in mathematics and reading. To meet the specific academic needs of participating children, volunteer tutors help them after school four days a week, supervised by a reading specialist.

Baptist Children's House. This program is intended to provide after-school tutoring in mathematics and reading by a qualified mathematics teacher and reading specialists. Related recreational and arts-and-crafts activities also are provided. The program operates four days a week.

Children's Aid Society. This program is intended as a tutorial reading program. Depending on their needs, pupils are tutored individually once or twice per week by a reading specialist. After-school tutoring is conducted on an individual basis.

Diagnostic Center of the Sisters of the Good Shepherd. This program provides instruction in the basic skills of reading and mathematics. Since the girls are usually in residence for a maximum of four to five weeks only, the emphasis is on prescribing a program for the girls to continue after leaving the center.

Girard College. The intent of this program is to provide both reading and mathematics instruction to eligible pupils. The reading instruction is for elementary and secondary pupils; the mathematics instruction is for secondary pupils only.

Methodist Home for Children. This program provides tutorial assistance to pupils after school through the use of volunteer tutors recruited from nearby colleges and coordinated by a staff member. Pupils receive tutorial help in the basic skills of reading and mathematics. four days a week during the school year. In addition, they receive help in hobby areas of interest related to their basic skill needs.

Morrell School. This program provides to its eligible pupils remedial reading instruction. A qualified reading specialist teaches the girls in small groups.

Southern Home for Children. In this program eligible pupils receive after-school instruction three days a week in reading and/or mathematics. The reading program is supervised by a reading specialist.

Youth Development Center. The program's primary focus is on reading and mathematics. In addition to these basic skills, related courses in photography and family management are offered. (This institution's program, funded under USOE Grant #D-6376, was included in this project's evaluation because of similarity of services provided.)

Youth Service, Inc. This institution operates a reading program after school two days a week for its eligible pupils. The instruction is given to small groups and/or individual pupils.

PREVIOUS FINDINGS

Past evaluations (1968-1975) showed that the contracted services were being provided by the institutions receiving funds.

EVALUATION OF THE CURRENT YEAR

Evaluation of the Institutions for Neglected and Delinquent Children project during the current year focused on the respective processes and accomplishments of the 10 participating institutions' programs.

IMPLEMENTATION

In 1975-1976 the project's intended mode of operation was fully implemented in four institutions (Association for Jewish Children, Children's Aid Society, Girard College and the Morrell School) and partially implemented at six (Baptist Children's House, Diagnostic Center, Methodist Home, Southern Home, Youth Development Center, and Youth Services, Inc.)

In February, the state department issued new program guidelines for Institutions for Neglected and Delinquent children. These guidelines were similar to other Title I programs and included the following: (1) eligibility for participation in Title I programs for institutionalized children should be the same as for others participating in Title I programs in the public schools; (2) each child should receive a minimum of one hour of instruction in mathematics and/or reading; (3) 75% of each program's budget must be spent on basic skills and 25% on other related activities; (4) when a reading program is provided, it will be supervised or conducted by a person certified as a reading specialist. Consequently, for purposes of this year's evaluation, a program was considered fully implemented if (a) it began when it had originally been scheduled, (b) it began to provide the majority of services in the basic skills area, (c) a certified reading specialist was directly involved with a reading program, and (d) procedures for determining eligibility were followed. Starting dates for the programs are summarized in Table 1.

In discussions with the evaluator, program directors of most institutions demonstrated a thorough understanding of their respective programs. They attributed most of the delays in program implementation to one or more of the following: (a) uncertainty about School District procedures resulting in tardy transmittal of expenditure statements and signed contracts, (b) late hiring of program personnel, (c) an institutional policy of not starting a program until funds are in hand, and/or (d) organizational problems at the institution itself.

Association for Jewish Children. This program was fully implemented. Services in reading and mathematics were provided for 11 eligible children. The reading specialist supervised the tutors and provided diagnosis and prescription activities for the children.

Baptist Children's House. This program was partially implemented. Services began in October and provided two reading programs for 36 children. These programs were supervised by reading specialists who worked directly with small groups and individuals. A mathematics program offering small-group instruction was also provided. Related cultural trips were reported taken.

Observations revealed that after-school tutoring experiences in reading and mathematics seemed well-organized. Informal discussions with instructors revealed planned, organized lessons, and an understanding of pupils and subject matter.

Children's Aid Society. This program was fully implemented, beginning its services in September. Forty-five children received both individual and small-group instruction. The reading specialist worked directly with children. During these tutoring sessions, a variety of reading materials on many levels were used and a positive pupil-teacher rapport was observed.

House-parent tutors were supervised by the reading specialist and educational psychologist. Both worked closely with one another in setting-up an educational program best suited for each child's mode of learning.

Although the evaluator did not observe these sessions, because of the nature of the living groups, interviews with all supervisory personnel indicated a well-planned format.

Diagnostic Center. This program was considered only partially implemented because (a) the designated reading specialist was not certified and (b) Title-I-eligibility was not always determined according to the new guidelines. It must be noted, however, that extensive testing was completed on each girl, indicating performance below grade level. A total of 208 girls received these services during the year.

Complete records were kept on each girl receiving services in the areas of mathematics and reading and were available for the evaluator's inspection.

Girard College. This program was fully implemented. Reading programs for both elementary and secondary students were conducted by reading specialists--both individually and in small groups. Secondary students also received a mathematics program. A total of 64 children received these services. Observations during the regular school day revealed an excellent rapport between students and teachers.

Methodist Home for Children. This program was considered partially implemented. Because of the guidelines issued mid-year, this institution had to revamp its entire program. A reading specialist was hired in April to determine student eligibility and to begin the prescribed reading program. Until April, however, college volunteers worked with participating children in a tutorial capacity following the intended mode of operation at that time. Seventeen children received their services.

Morell School. This program was fully implemented. Observations and interviews with supervisory personnel revealed a well-planned, well-executed reading program for 55 girls. The room designated for this service provided age/grade appropriate materials which the girls seemed to enjoy. Conversations with four girls revealed a genuine like for the program.

Southern Home. This program was partially implemented and operated in March, April, and May. Observations of the day program revealed a well-planned, well-executed reading program supervised by a reading specialist. Services were reported for 60 children. It was also reported to the evaluator that before any program was begun for a student, the reading specialist, educational psychologist, and teacher determined what mode of instruction would be most appropriate.

Youth Development Center. This program was partially implemented. It began in February because of difficulties in the hiring of a reading specialist for the program. Reports indicated that 26 children received intended services after their regular school day.

Youth Services, Inc.. This program was partially implemented beginning its services in November. Reading instruction was provided to 53 students. Instruction took place in residence cottages and was provided by a reading specialist.

ATTAINMENT OF OBJECTIVES

Objective 1: Each institution which provides mathematics instruction in this project will provide it to its underachieving children from October to June for a minimum of two hours per week per child. Detailed logs of the duration and content of each session will be maintained.

This objective was considered partially attained because three of the institutions which offered mathematics instruction did not begin their programs when scheduled.

The Institutional Program Information Form was forwarded to all institutions during the Fall by the evaluation team. The form requested information pertaining to the time each week devoted to the instruction of mathematics for each child.

Those institutions which did provide the scheduled mathematics service (Association for Jewish Children, Baptist Children's House, Diagnostic Center, Girard College) provided a minimum of two hours per week per child beginning in October.

Those institutions which did not begin when scheduled were Southern Home (March), Youth Development Center (February), and Youth Services, Inc. (November). These late starting dates were related to procedural matters at the institution itself and/or between the institution and the School District. It should be noted, however, that these institutions, although beginning their programs later than expected, did provide a minimum of two hours of mathematics instruction per week per child for the remainder of the school year.

Objective 2: Each institution which provides reading instruction in this project will provide it to its underachieving children from October to June for a minimum of two hours per week per child. Detailed logs of the duration and content of each session will be maintained.

This objective was considered partially attained because three of the institutions which offered reading instruction did not begin their programs when scheduled.

The Institutional Program Information Form was forwarded to all institutions during the Fall by the evaluation team. The form requested information pertaining to the time each week devoted to the instruction of reading for each child.

Those institutions which did not begin their programs when scheduled were Southern Home (March), Youth Development Center (February), and Youth Services, Inc. (November). These late starting dates were related to procedural matters at the institution itself and/or between the institution and the School District.

Those institutions which did provide the scheduled reading services (Association for Jewish Children, Baptist Children's House, Children's Aid Society, Diagnostic Center, Girard College, Methodist Home, and Morrell School) provided a minimum of two hours of instruction per week per child.

It must be noted that the new program guidelines issued in February mandated that a reading program had to employ a reading specialist to work with children directly or in a supervisory capacity. The Diagnostic Center unfortunately was not able to meet this requirement. The teacher working with the girls at that time was not a certified reading specialist.

The Methodist Home revamped its entire program but did not hire a specialist until April.

Objective 3: Each institution which provides cultural trips in this project will provide for its disadvantaged children a minimum of one trip per month per child from October to June. Detailed logs indicating individual participants will be maintained.

This objective was not applicable because of mid year guideline changes emphasizing the basic skills.

Objective 4: Students receiving at least five weeks of mathematics instruction in this project during the 1975-1976 school year will improve their basic mathematics skills to the extent that teachers using the Institution Skill Record for Mathematics at the end of the students' respective participation in the project will rate 75% of them as having gained additional knowledge of numeration, fractions, addition, subtraction, word problems, geometry, symbols, multiplication, division, mental computation, numerical reasoning, work problems, missing elements, money, measurement, and/or time.

This objective was partially attained. The 75% criterion was attained in three areas; it was not attained in two areas. No service was reported for the remaining 11 areas of mathematics instruction.

The Institutions Skill Record for Title I Mathematics Programs was completed for each child receiving a minimum of five weeks of instruction at his/her Institution. Each teacher was directed to rate the progress of each child in mathematics by checking one of the following ratings for each category of mathematics instruction listed on the form: "additional knowledge gained," "no progress," or "area not covered." These ratings were the result of various tests administered at each institution.

An analysis of the data revealed that the 75% criterion was attained in the areas of numeration (83%), addition (95%), and subtraction (96%). The criterion was not attained in the areas of fractions (65%) and word problems (57%). No instruction was reported for geometry, symbols, multiplication, division, mental computation, numerical reasoning, work problems, missing elements, money, measurement and time.

Objective 5: Students receiving at least five weeks of reading instruction in this project during the 1975-1976 school year will improve their basic reading skills to the extent that teachers using the Institution Skill Record for Reading at the end of the students' respective participation in the project will rate 75% of them as having gained additional word-recognition, comprehension, oral reading, and/or study skills.

This objective was partially attained. The 75% criterion was attained in word recognition and oral comprehension; it was not attained in spelling. No instruction was reported in study skills.

The Institutions Skill Record for Title I Reading Programs was completed for each child receiving a minimum of five weeks of instruction at his/her Institution. Each teacher was directed to rate the progress of each child in reading by checking one of the following ratings for each category of reading instruction listed on the form: "additional knowledge gained," "no progress," or "area not covered." These ratings were the result of various tests administered at each institution.

An analysis of the data revealed that the 75% criterion was attained in word recognition (89%) and oral comprehension (78%). The criterion was not attained in spelling (68%). No instruction was reported for study skills.

SUMMARY AND CONCLUSIONS

The institutions for Neglected and Delinquent Children project was established to meet the needs of institutionalized children who, because of neglect and/or delinquency, have severe academic, social, and/or cultural deficiencies. The project's intended mode of operation was fully implemented at four institutions and partially implemented at six.

Implementation was delayed at some programs by late personnel hiring; organizational problems at the Institution; an institutional policy of not starting a program until funds are in hand; uncertainty about School District procedures resulting in tardy transmittal of expenditure statements and signed contracts; and/or changes in guidelines issued February from the Pennsylvania Department of Education. These guidelines were similar to those affecting other Title I projects and specified that (a) eligibility for participation in Title I programs for institutionalized children should be the same as for participation in Title I programs in the public schools; (b) each child should receive a minimum of one hour of instruction in reading and/or mathematics; (c) 75% of each program's budget must be spent on basic skills and 25% on other related activities; and (d) when a reading program is provided it will be supervised or conducted by a person certified as a reading specialist.

Programs varied widely from institution to institution and included educational activities integrated within the institution's regular school day and tutoring activities taking place during or after school. All programs involved either professionals and/or highly qualified volunteers supervised by a specialist in the subject area. Students received instruction individually or in small groups.

Six institutions provided tutorial services. They included Association for Jewish Children, Baptist Children's Home, Children's Aid Society of Pennsylvania, Methodist Home for Children, Southern Home for Children and Youth Services. Four provided schooling on their campuses for children under their care. These included Diagnostic Center of the Sisters of the Good Shepherd, Girard College, Morrell School and Youth Development Center. Both types of programs used Title I funds to provide instructional personnel, materials, and services that would otherwise be unavailable to their students.

The objectives dealing with students' gains in reading and/or mathematics skills were partially attained. The objectives addressing the length of time that programs would operate were also partially attained. The objective dealing with cultural trips was not applicable because of midyear changes in program guidelines which emphasized basic skills. Consequently, intended services were provided to eligible children in reading and/or mathematics and many children receiving these services were reported to have gained additional knowledge.

TABLE 1

ACTUAL STARTING DATES OF REGULAR-SCHOOL-YEAR "INSTITUTIONS" PROGRAMS

First Month of Program Operations, 1975-1976	Number of Institutions Starting Their Programs
September	8
October	1
November	1
December	0
January	0
February	1
March	1

LEARNING CENTERS

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Learning Centers project provides a model of supportive teacher behavior and classroom organization which utilizes an informal, individualized laboratory approach. Through the use of educational aids, activities, and games, pupils are given self-chosen experiences in basic skill areas. Teachers, parents, and administrators from target schools are served in workshops and consultations.

RATIONALE

Children from target areas tend to have low self-images, and deficiencies in oral language skills and inquiry techniques. They lack skill in symbolizing and in inductive thinking. The Learning Centers project provides these children with a learning atmosphere structured to correct their deficiencies through an activity-centered approach.

EXPECTED OUTCOMES

It is expected that the learning atmosphere will be warm, caring, and non-punitive. Pupils should improve in basic skills, in oral and written communication, and in physical, motor, and manipulative abilities. They should become contributing members of a group, and develop an understanding of themselves and their relationship to society. The pupils should learn to make choices, to be self-directive in learning and to be independent. Also, their creative and aesthetic expression should increase.

MODE OF OPERATION

The Learning Centers project is comprised of two components: the Learning Center Laboratories and the Teacher-Parent Center. These components serve the children, teachers, school administrators, and/or parents.

The Learning Center Laboratories are located in ten target schools. They are organized to facilitate discoveries and exploratory activities in mathematics, science, and language arts. The centers are organized by a specially trained teacher who acts as a guide, motivator, and monitor. Children are taught to assist one another.

The Teacher Parent Center at the Durham School provides whole-day teacher and community workshops on developing educational aids and the learnings they imply. Workshops are provided in mathematics, language arts, early childhood, puppetry, creative writing, recycling, and making classroom furniture and equipment. Approximately one third of staff time is devoted to providing consultative services to school staffs and parents in their respective schools.

All learning-center teachers attend staff-development sessions every Wednesday afternoon. Here, teachers develop ideas and games to be used in their instructional programs. At times, noncenter teachers participate in the staff-development sessions.

PREVIOUS FINDINGS

During the four years, 1968-1973, pupils in the Peirce and Waring centers showed substantial progress in prereading, reading, and auditory vocabulary skills. The reading-achievement scores of pupils in most grades at the Durham center were found to be higher than the District 2 norms.

In 1973-1974, LC laboratory attendance was found on the average to be greater than both total-school attendance and attendance of selected same-school comparison groups. On the Language, Mathematics, and Reading subtests of the California Achievement Tests (1970 edition), LC pupils exceeded the respective district average scores in 18 of 45 comparisons. Pupils in the two self-contained LC laboratories exceeded the district average in every comparison.

The project also succeeded in meeting a variety of pupil academic achievement objectives in 1974-1975. LC pupils exceeded comparable nonparticipating pupils in the development of skills in problem solving, mathematics-concept formation, and written communication.

Since 1973, the large numbers of teachers, parents, and administrators who voluntarily sought assistance in either the Teacher-Parent Center or the Learning Center Headquarters, and the positive responses to the Teacher Center Survey, were interpreted as an indication of both the need for and the success of these components of the project.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the Learning Centers project focused on the mathematics-concept formation, mathematics achievement, and communication skills of participating pupils, and the effectiveness of the Teacher-Parent Center in changing teacher behavior and attitudes.

IMPLEMENTATION

During 1975-1976, the project's intended mode of operation was fully implemented.

Learning Center Laboratories directly aided approximately 1,000 pupils in Grades 1-8 by providing discovery-oriented instruction in mathematics and other basic skills. Through the Teacher-Parent Center and Traveling Teacher Center, the project also hosted more than 6,000 visits from faculty members, administrators, and parents from almost every Title I school, providing them with special training in teaching methodology and educational planning. Teacher-Parent Center staff also gave planning assistance to more than 50 School District administrators.

Learning Center Laboratories. Located in 10 Title I schools, LC labs were structured according to their respective pupil population's needs. The labs included eight general mathematics labs and three other specialized labs focusing on communications, industrial arts, and mathematics for handicapped pupils. In the communications-arts lab, oral and written skills were developed using closed-circuit television and photojournalism instruction. In the mathematics lab serving physically handicapped pupils, the teacher tailored all instructional materials to the needs of this special group.

One of the more unusual LC lab programs was in operation at the Bishop Learning Center. Title I pupils suspended from District 4 schools for disruptive behavior attended this alternative junior high school, where they were involved in repairs and alterations of the recycled facility. Pupils functioned as apprentices to the teacher in planning, fabricating, and installing improvements. They also participated in specialized courses in automotive mechanics and photography. Supportive help to pupils included ongoing counseling services before and after school.

The evaluator conducted 24 systematic observations in LC labs, averaging 60 minutes each, during the school year. A 12-category observational checklist, developed by the evaluator, was used to assess classroom atmosphere, selection of materials, and teacher and pupil behavior.

Generally, the informal activity-centered teaching approach was used in all LC labs to motivate and interest pupils through game-like activities using colored water jars, dice, and playing cards. The metric system served as a prime source of instruction in most LC labs. Efforts were also made to increase the parents' instructional skills so they could continue some LC activities at home. Project teachers reported that parent involvement ranged from daily classroom participation to attendance at weekly instructional sessions.

In all observations, physical atmosphere in the centers was considered comfortable and stimulating. Positive emotional atmosphere, evidenced by teachers' and children's physical appearances, was observed during 22 visits. Teacher behavior was warm and acceptant of pupils' feelings and ideas.

Pupils and teachers generally shared responsibility for selecting learning activities. In the 16 observations where pupils chose instructional materials, they either worked on materials chosen within areas prescribed by the teacher, or chose freely from educational materials.

The teaching approach generally observed in LCs was discovery-oriented, and in all 24 observations, teachers structured games with a clear, cognitive focus. However, pupil idea developemnt was convergent in most observations, as LC teachers tended to accept only one answer as correct, probably because of pupils' severe basic-skill deficits. Teacher behavior in response to unexpected classroom events and pupils' problems was considered flexible, and in almost every observation teachers changed assignments, topics, and/or teaching approaches in response to pupils' problems. In 12 observations, pupils worked individually; in 12 they worked in small groups.

In 12 observations, verbal behavior was high, but the quality of language was of a lower order (descriptions, designations, simple value judgements with no justification). In the 12 remaining observations, pupils' verbal output was of high quantity and quality (classifications, definitions, generalizations, inferences). Time spent listening, initiating, and responding was divided approximately equally between teachers and pupils.

On the whole, the evaluator judged pupil self-concepts as positive. Pupils appeared happy, physically active, and well-groomed, and made positive statements about their behavior, appearance and intellectual abilities. Self-discipline was also high, indicated by pupils' cooperative work. Verbal and nonverbal teacher threats and punishments were minimal or nonexistent. Pupil independence (making decisions and value judgements) and purposefulness (single-mindedly carrying a task to completion) were considered high in 20 observations.

Despite a midyear change of personnel at one LC lab and a delay of several months in finding a qualified LC lab teacher for the physically handicapped pupils, the LC lab program was fully implemented.

Teacher-Parent Center. Located at the Durham School, the T-P center provided development sessions for teachers, administrators, aides, and parents on released- and volunteer-time bases. The main T-P center goal was to help participants develop basic-skills activities and techniques that provide an exciting, stimulating learning environment.

During 1975-1976 the T-P Center hosted more than 6,000 participant visits (including more than 1,400 visits to on-site locations). The T-P center staff conducted activity-oriented, custom-designed, and free-choice whole- and half-day workshops for teachers, principals, supervisors, coordinators, paraprofessionals, and parents from more than 130 Title I schools and more than 25 Title I projects. Workshop sessions, attended on released time or volunteer bases, focused on participants' development of new mathematics, language arts, and reading activities and heuristic teaching techniques to be experimented with and used in classrooms. The main goal of the center, to help participants develop dynamic new ways to teach basic skills, was met as documented by participants' self-report responses to the Teacher Center Survey and the evaluator's observations at workshops.

The project director reported that in a typical month approximately 500 to 600 participants voluntarily attended the center. During February 1976, a study was conducted, and results showed that of the voluntary participants, 50% were teachers; 36% classroom aides; 5% student teachers; 4% supervisory personnel; 3% parents, parent aides, or day-care workers; 1% administrators; and 1% other interested persons.

The project director reported approximately 6,000 visits to the center; including an average of 1,400 on-site and conference visits. Project staff estimated that the actual number of visits was approximately 20% greater, because visitors did not always sign the attendance register.

Observation workshops, attended by more than 300 teachers, featured topics such as preparing children for a metric world, working with hand and power tools, making puppets, creative dramatics, and developing a classroom learning center. Using their own time, teachers returned to make 1,350 additional after-school visits to the T-P center.

Other language-group workshops, custom-tailored to the needs of participants, played host to the following: 300 visits by teachers and aides from Day Care Services, 200 visits by student teachers, 60 visits by teachers from the Benchmark Project, and visits by 50 principals from District 2. In addition, T-P center staff members held workshops for 40 mathematics collaborators and supervisors, 50 parents from five schools, 20 Follow Through and kindergarten supervisors, 25 District 5 reading teachers, 25 Reading Skills Center teachers, 20 District 2 mathematics-resource teachers, 150 teachers and classroom aides from various Title I schools, 125 Title I reading aides, 90 Affective Education Program teachers, 20 nonpublic school teachers, and 25 childcare center head teachers.

Other special workshop participants included McClure School reading aides, the Walton School staff, language-arts consultants, Minnemast program teachers, Title I classroom aides from Districts 2, 4, and 6, and Early Childhood Education project managers.

T-P center staff also initiated a program of on-site workshops, in which they brought relevant training materials to the school sites of the following: two visits each to 12 Follow Through schools (360 teachers and parents), three visits to two Career Education Labs (14 teachers), six visits to eight teachers at the School for All Ages, one visit to five teachers at the Reynolds Skill Center, one visit to 450 parents and teachers at the District 4 Bicentennial Early Childhood Conference.

A new adjunct of the T-P center, the Traveling Teacher Center, was originated by the Bishop LC teacher. It became operational at midyear, serving Districts 1 and 4, and provided direct instructional services to teachers of a school by the invitation of the principal. The Traveling Teacher Center visited eight schools and provided training to approximately 400 participating faculty members and administrators with specially tailored, on-site staff-development sessions. Very positive responses to the Traveling Teacher Center opinion sheet, an informal rating scale developed by the Traveling Teacher Center director, indicated the success of this component. Letters of thanks from administrators further supported the need for the continuation of this component.

ATTAINMENT OF OBJECTIVES

Objective 1: On the KeyMath Diagnostic Arithmetic Test administered in April 1976, pupils in Learning Center Laboratories will attain significantly higher ($p<.10$) scores in concept formation in mathematics than comparable groups of nonparticipating pupils.

This objective was attained.

The KeyMath Diagnostic Arithmetic Test, an instrument particularly suited to Learning Centers hands-on, discovery-oriented teaching approach, was administered in April 1976 by lab teachers to a sample of 21 LC pupils and 21 non-LC pupils, matched by CAT-70 (1975) Total Mathematics scores. A correlated $\underline{t}$ test indicated that the results were statistically significant at the .05 level, which exceeded the .10 criterion. LC pupils made an average of 21.1 more correct responses than nonproject pupils.

Objective 2: Pupils in Learning Center Laboratories, on the average, will gain at least one instructional level in total mathematics ability, as evidenced by 80% mastery on the respective levels of the Philadelphia Mathematics Evaluation Test administered in September 1975 and May 1976.

This objective was attained.

The Philadelphia Mathematics Evaluation Test was administered by homeroom teachers in September 1975 and May 1976 to 500 LC pupils in Grades 1-6 in seven schools. The average gain for all LC pupils was 1.1 levels. Seventy-six percent of the LC pupils gained one instructional level or more. Further analysis of the data showed that 28% of the pupils exceeded the criterion by one or more levels, with 21% gaining two levels, 6% gaining three levels, and 1% gaining four or more levels.

Objective 3: Pupils in the Douglass communications laboratory will demonstrate a proficiency in the use and techniques of media processes by producing a media product that, when shown to peer groups at Douglass, will communicate the major concepts that the creators of the media product intended. A sample of peer groups viewing the product will achieve a score of 50% on the Audience Information Test after being exposed to the media product.

This objective was fully attained.

After viewing a program describing the life of Martin Luther King, Jr., produced by a sixth-grade class in the Douglass School Communications Lab, 109 pupils randomly selected from Grades 4-6 filled out the Martin Luther King Audience Information Sheet. The sheet, a 10-item, short-answer, teacher-made test with a K-R 20 reliability of .94, covered information presented on the pupil-created television program. The sheet was administered by homeroom teachers and scored by the evaluator.

Pupils achieved an average score of 57% on the sheet, exceeding the criterion of 50%. Seventy-two percent of the pupils achieved a score of 50% or more on the test.

Objective 4: On the Teacher-Parent Center Survey form, teachers who have been voluntary participants in the Teacher-Parent Center for at least two years will report changes in their own understanding of the Learning Center approach as evidenced by classroom atmosphere, materials selection, teacher behavior, and pupil behavior.

This objective was fully attained.

A locally-developed teacher survey was sent to 68 selected participants, of whom 38 (56%) responded. The majority of respondents reported substantial increases in the depth and quality of their understanding of Learning Centers teaching approach. As a result of their T-P center experience, respondents indicated they had made positive changes in the physical and psychosocial environment of their classrooms, encouraged pupil self-choice of instructional materials, added child-directed, discovery-oriented activities to their teaching repertoire, and succeeded in encouraging pupil independence and self-discipline as well as interest-based learning behaviors.

As a result of T-P center experiences, the majority changed the physical aspects of their classrooms by making educational aids and giving pupils more working space for independent activities. Respondents also found center activities very practical, highly motivating, and useful in classroom instruction. Respondents indicated that as a result of their T-P experiences, they employed new curriculum materials and independent learning activities, and varied their teaching techniques. All respondents were satisfied with T-P center experiences and felt their needs had been met.

Objective 5: On the Teacher-Parent Center Survey form, teachers who have been voluntary participants in the Teacher-Parent Center for at least two years will indicate changes in their behavior in the affective areas of teacher-pupil interaction emphasizing more open and individualized approaches.

This objective was attained.

Responses from the majority of teachers on the Teacher-Parent Center Survey, as described under Objective 4, indicated they made positive changes in their interpersonal, social, and emotional interaction with pupils. In most cases, teaching styles changed from highly structured, exclusively cognitive approaches to more open and individualized approaches. Pupils' individual affective needs and socioemotionally-based learning styles were emphasized, and various classroom activities were experimented with to motivate pupils. Pupil needs and feelings were recognized, and activities giving pupils free time to explore materials were instituted.

SUMMARY AND CONCLUSIONS

The Learning Centers project, through its laboratories, provided Title I pupils with a learning atmosphere structured to correct mathematics and other basic-skill deficiencies via an activity-centered inquiry approach. In addition, through its training component, the Teacher-Parent Center, the project instructed teachers, paraprofessionals, parents, and administrators in the implementation of LC approaches in their classrooms, homes, and schools.

The 1975-1976 evaluation process included on-site monitoring, teacher questionnaires, conferences with the project director, and administration of the KeyMath Diagnostic Arithmetic Test, the Philadelphia Mathematics Evaluation Test, and a locally-developed audience information test.

The Learning Centers project was fully implemented in both components. LC laboratories provided direct services to approximately 1,000 children in Grades 1-8. During the school year, the Teacher-Parent Center and Traveling Teacher Center hosted more than 6,000 visits (including over 1,400 on-site visits) by principals, teachers, paraprofessionals, and parents from more than 130 Title I schools and more than 25 Title I projects.

All objectives were fully attained. The project was successful in having LC pupils exceed comparable nonparticipating pupils in mathematics concept-formation as evidenced by the KeyMath Diagnostic Arithmetic Test. LC pupils also showed mastery of basic mathematics skills by making significant gains on the Philadelphia Mathematics Evaluation Test. LC communications lab pupils demonstrated their proficiency at oral and visual communication by successfully transmitting to their peers an informational message via television.

Also, on the Teacher-Parent Center Survey, teachers who were voluntary participants in the Teacher-Parent Center for two years or more reported changes in their understanding of the Learning Centers approach as evidenced by classroom atmosphere, materials selection, teacher behavior, and pupil behavior. They also indicated changes in their own behavior in the affective areas of Teacher-pupil interaction, emphasizing more open and individualized approaches.

The success of the LC approach in fostering pupil achievement in diverse areas appeared to indicate a need for continuation of the project and the growth-fostering environment it creates. The positive responses to the Teacher-Parent Center Survey, indicating positive affective and behavioral changes by participants, and the thousands of visits by teachers, parents, paraprofessionals, and administrators who voluntarily sought assistance in the Teacher Parent Center, were interpreted as an indication of the success of this project component.

MEET THE ARTIST

In the absence of funding approval for the year, the project was not operational during 1975-1976.

MOTIVATION

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Motivation project offers 10th-, 11th-, and 12th-grade students a wide variety of cultural enrichment, curriculum enrichment, and tutoring experiences designed to motivate them to seek post-high school education, particularly in a college.

RATIONALE

The Motivation project seeks to remedy seven educational needs of Title I children, which are noted in the Guidelines for Title I projects: (a) improvement of basic skills, (b) knowledge for living in modern American society, (c) experiences which motivate learning, (d) standard English speech, (e) heightened aspiration and motivation, (f) an understanding of the purposes of education, and (g) teachers who understand their pupils' problems.

The Guidelines note also that "a greater proportion of educationally deprived youngsters in low-income areas [should] not only be given a better chance of getting to college but also be equipped psychologically and educationally for success in college." The Motivation project is the only Title I project in Philadelphia whose primary goal is preparing students for college.

EXPECTED OUTCOMES

It is expected that students will gain entrance into college and will have a sufficiently solid academic foundation to succeed in college.

MODE OF OPERATION

The project aims to strengthen students academically, to expose them to cultural events, to involve their parents in the learning process, and generally to introduce them to new academic and cultural experiences not provided by the regular school program. Although its implementation varies among sites, the project usually gives students five extra class periods of mathematics and English per week where teachers provide enrichment material (e.g., advanced work) or remedial help, such as tutoring. Tutoring is offered also before and after the regular school day. Project students have their own counselor who is trained to handle their special problems. Students attend after-school cultural events such as plays, movies, operas, ballets, and lectures. Some attend late afternoon and Saturday classes in remedial or college-level courses at nearby colleges.

PREVIOUS FINDINGS

Previous years' evaluations showed desirable results in the following areas: classroom performance, verbal and nonverbal functioning, occupational and educational aspiration levels, expectations of success, basic skills, parental involvement, attitudes toward school and learning, attendance rates, retention rates, college applications, and college acceptances. Motivation students were entering college at rates higher than would be predicted from their standardized test scores. A higher percentage of Motivation graduates attended programs creditable toward a college degree than high school graduates nationwide. Project parents expressed positive attitudes toward Motivation, and all project teachers reported constructive changes in their own attitudes toward students.

EVALUATION OF THE CURRENT YEAR

The current evaluation of the Motivation project examined the students' academic progress in high school and admissions to colleges and universities.

IMPLEMENTATION

During the 1975-1976 school year, the project's intended mode of operation was fully implemented.

Each Motivation site had particular assets, problems, and constraints. One school had to roster students for extra classes before school; another school was located near college campuses; and a third served only Motivation students. Therefore, although its goals were the same everywhere, it was impossible for the project to operate identically at all sites. While all schools adhered to federal guidelines, each school stressed different ways of preparing students for college. Since the project relied on personal relationships to motivate studens, the coordinators' and other employees' personal beliefs also determined which components of the projects were stressed at each school.

In general, Motivation students were block-rostered for English and mathematics classes, and received five extra periods a week in these subjects. Students were provided with a counselor, whose sole responsibility was to Motivation students. Tutoring was also available at each site.

In addition to curriculum enrichment, the project provided students with cultural activities. Students attended out-of-class events such as plays, operas, movies, and lectures. They were also encouraged to watch educational television shows and to participate in individual cultural activities.

The following paragraphs described some of the specific characteristics of the Motivation project at its various sites.

Bartram. Diagnostic tests, designed by project English and mathematics teachers, were administered to incoming tenth graders. Students who performed poorly on the mathematics test repeated Algebra 1. Activities included open talk sessions, an olympics program, ecology projects, and international foods, drama, home maintenance, fashion, dance, and photography clubs.

Bok. The project at Bok had no coordinator this year. No extra periods of mathematics and English. The most essential Motivation elements were scheduled. Basically, the program included tutoring, counseling, and cultural events. Parents assisted in orientating new parents and students.

Edison. Fifteen students attended Haverford College every Saturday for tutoring classes. Parent participation has been increased and attendance at meetings improved. A few students participated in a two-day exchange visit with Wissahickan High School in Ambler, PA.

Franklin Learning Center. Franklin Learning Center (FLC) continued for the second year as a center for innovative projects. Within FLC. Motivation was a highly structured project, which included cultural events, tutoring, open talk sessions, and an academic enrichment component. FLC Motivation students had their own counselor.

Kensington. Kensington's program was different from other project schools in several ways. Because only girls attend Kensington, Edison Motivation students occasionally attend cultural events with them. Kensington's Motivation students did not have their own counselor; therefore, the program lacked other schools' unity. Because of the large number of Spanish-surnamed students, Spanish-oriented cultural evaents were scheduled. Twenty students participated in a student exchange with Wissahickan High School located in Ambler, PA. The coordinator reported that the average daily attendance patterns for Motivation students compared favorably with the city-wide average.

Penn. The counselor provided individual and small-group counseling on a regular basis. The Career Resource Center at the school provided much career related information for Motivation students. The project staff also prepared a course to be offered next year on how to take examinations.

South Philadelphia. South Philadelphia's Motivation program had a strong parent component. Students received additional time for mathematics, English, chemistry and physics. More than half the Motivation students received voluntary tutoring.

Strawberry Mansion. The project opened this year at Strawberry Mansion Jr./Sr. High School and served 180 students in Grades 9, 10 and 11. Within Strawberry Mansion, Motivation was a highly structured project which included cultural events, tutoring, open-talk sessions and an academic enrichment component. The Motivation students had their own counselor.

University City. In project English classes, students were taught vocabulary building, writing and developmental reading to improve comprehension and reading rates. In mathematics classes, fundamentals, basic concepts, and problem solving were reviewed. Students were also prepared for college entrance examinations, and studied computer mathematics and logic. The Motivation Basic Skills Workshop was formed to strengthen the basic mathematical skills of the Motivation students in Algebra I and II for students with low grades.

West Philadelphia. Motivation students participated in unusual events designed to teach them about different cultures. They met with a Brazilian university professor, a Jamaican poet, a Haitian woman, and the staff of a local French restuarant. Art exhibits and visits with university personnel were some other cultural events that Motivation students attended.

ATTAINMENT OF OBJECTIVES

Objective 1: Motivation students will obtain significantly higher ($p<.05$) Total Reading scores on the California Achievement Tests than a comparable group of students chosen for the project but attending schools not eligible for Title I funds during the 1975-1976 school year.

This objectives was attained.

Students who had taken the verbal subtest of the Cooperatives School and College Ability Tests (SCAT) in Grade 9 were used in this comparison. A sample of 88 Motivation students was compared with a group of 88 students whose schools became ineligible for Title I funds in the 1973-1974 school year. National percentile ranks corresponding to average scores on SCAT in Grade 9 (1973), and their average grade-equivalent scores on the Total Reading subtest on the California Achievement Tests (CAT) in Grade 12 (1976), are shown in Table 1.

Motivation students (31st percentile) had scored slightly but not significantly higher than the comparison group (28th percentile) on the SCAT in Grade 9. After two-and-one-half years in the project, Motivation students (11.9 GE) scored significantly higher (.05 level) than the comparison group (10.5 GE) on the CAT.

Objective 2: Motivation students will obtain significantly higher ($p<.05$) Verbal scores on the College Board Scholastic Aptitude Test than a comparable group of students chosen for the project but attending schools not eligible for Title I funds during the 1975-1976 school year.

This objective was attained.

In the same comparison used for Objective 1, the average College Board Scholastic Aptitude Test (verbal) scores (SAT-V) are shown in Table 1.

After two-and-one-half years in the project, Motivation students (338) scores significantly higher (.05 level) than the comparison group (319) on the SAT-Verbal.

Objective 3: Motivation students will obtain significantly higher ($p<.05$) Mathematical scores on the College Board Scholastic Aptitude Test than a comparable group of students chosen for the project but attending schools not eligible for Title I funds during the 1975-1976 school year.

This objective was not attained.

In the same comparison used for Objective 1, the average College Board Scholastic Aptitude Test (mathematics) scores (SAT-M) are shown in Table 1.

After two-and-one-half years in the project, Motivation students (349) scored higher than the comparison group (333) on the SAT-Mathematics. Although the Motivation students scored 16 points higher than the comparison group, the difference was not statistically significant at .05 level.

Objective 4: Motivation students will be accepted for admission at colleges and universities in significantly higher percentages ($p<.05$) than a comparable group of students chosen for the project but attending schools not eligible for Title I funds during the 1975-1976 school year.

This objective was attained.

Of 646 Motivation students in the 12th grade, 423 (65%) were accepted for admission to colleges and universities. Of 236 students in the comparison group, 73 (30%) were accepted for admission to colleges and universities. The difference was statistically significant (.05 level).

SUMMARY AND CONCLUSIONS

The Title I Motivation project prepared target-area students for college and improved their basic skills.

The current evaluation was an investigation of the percentage of Motivation students accepted for admission to college, and student's progress in reading, mathematics and English as compared with the group of students similarly chosen for the project but attending schools not eligible for Title I funds during the 1975-1976 school year.

The project's intended mode of operation was fully implemented. Although the project had the same goals at all schools, it was implemented differently at each site. At the most successful sites, the evaluator observed more involvement and enthusiasm displayed by students, parents, school administrators and project staff.

Three of the four project objectives were attained. Motivation students were found to be reading at a higher level than a comparable group of non-Motivation students. Sampled Motivation students also scored higher on the verbal and mathematics subtests of the College Board Scholastic Aptitude Test than the comparison group. Project participants were accepted for admission to colleges and universities at significantly higher rates than a comparable group of non-Motivation students.

TABLE 1

AVERAGE SCORES OF TWELFTH-GRADE STUDENTS WHO WERE SELECTED FOR MOTIVATION PROJECT WHILE IN NINTH GRADE

School	N	SCAT Verbal Percentile Rank (June 1973)	CAT Reading GE Score (Feb. 1976)	SAT Verbal Score (1975-1976)	SAT Math Score (1975-1976)
Project Continued:					
Bartram	15	18	12.2	342	370
Edison	4	28	11.9	365	365
Franklin Learning Center	5	33	12.7	333	358
Gratz	19	32	12.2	332	354
Penn	16	20	10.7	310	299
South Philadelphia	19	37	11.4	342	347
University City	10	35	12.7	375	380
Total Motivation Sample	88	31	11.9	338	349
Project Discontinued after Student Selection:					
Frankford	11	31	11.0	327	337
Germantown	6	47	12.9	393	410
Olney	21	32	10.7	323	355
Overbrook	50	23	10.2	308	313
Total Comparison Group	88	28	10.5	319	333

MULTIMEDIA CENTER

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Multimedia Center is a clearinghouse and service center providing teachers and students in target-area schools with curriculum-related audiovisual and other instructional materials.

RATIONALE

Regular classroom instruction in target-area schools must be supplemented by meaningful sensory experiences. Research has shown that target children need instruction which appeals to their immediate concerns, utilizes concrete rather than abstract examples, and involves their direct participation.

The Multimedia Center meets the children's needs by providing teachers with various audiovisual and other instructional materials to be used in a multisensory approach to learning.

EXPECTED OUTCOMES

The Multimedia Center is expected to provide Title-I-eligible students and teachers with materials meeting their specific curricular needs. In addition, the center will provide in-service training in the use and maintenance of audiovisual equipment.

MODE OF OPERATION

The Multimedia Center serves as a clearinghouse for audiovisual and instructional materials such as films, filmstrips, records, tapes, pictures, transparencies, games, and books. These materials relate to such subject areas as reading, language arts, mathematics, history, and art.

Catalogs of available materials and equipment are distributed to participating schools. Teachers request materials which relate to their instructional units. These materials are provided to the schools for varying periods of time.

The center also provides maintenance service for equipment housed in participating schools, and in-service training of teacher aides and students in the use of the equipment.

PREVIOUS FINDINGS

During the project's initial years of operation, the center was organized, equipment-lending procedures were established, and preliminary in-service courses were begun. Utilization records indicated that audiovisual and other educational materials had been incorporated into the classroom curriculum.

On surveys, participating school personnel indicated that they held highly favorable attitudes regarding the center's operation, and that the materials from the center were incorporated into the ongoing classroom activities.

EVALUATION OF THE CURRENT YEAR

During the current year, evaluation of the Multimedia Center project focused on (a) the operation of the center, (b) the extent to which materials provided by the center were incorporated into the ongoing classroom activities, and (c) the amount and impact of in-service training of paraprofessional aides and students.

IMPLEMENTATION

During 1975-1976, the project's intended mode of operation was fully implemented.

The Multimedia Center had 1,875 audiovisual and other instructional materials--films, filmstrips, records, cassettes, learning kits, transparencies, and games--available for circulation. Additionally, 1,747 pieces of equipment such as 3M secretaries, typewriters, record players, cassette player/recorders, and Language Masters were permanently housed in eligible participating schools.

Teacher requests were made weekly; alternate choices were made for each request. Loan limits for Multimedia Center materials ranged from a week to a semester. Project records indicate that 6,863 requests were filled during the year. Center materials were transported to and from participating schools by the multimedia trucking service.

From October 1975 to April 1976, the Multimedia Center coordinator conducted six in-service sessions, each lasting three hours. Twenty-two aides from six schools were trained in the classroom use of audiovisual and other instructional materials.

Between October 1975 and April 1976, the Multimedia Center coordinator trained 127 fourth- to eighth-grade students in the operation of various pieces of audiovisual equipment. These training sessions averaged three hours in duration.

ATTAINMENT OF OBJECTIVES

Objective 1: During the current school year, the Multimedia Center will provide audiovisual and other instructional materials that are related to the curricular needs of educationally deprived pupils. It is expected that 35% of the materials will be used on a weekly basis as measured by the Multimedia Center Evaluation Survey.

This objective was attained.

During the school year, project records indicate that 6,863 requests for materials were filled. A summary of the types of materials requested in specific subject areas appears in Table 1.

Between September and December 1975, teachers requesting materials were provided with the Multimedia Center Evaluation Survey to complete and return. This survey was designed to assess (a) types of materials requested, (b) the subject areas in which materials were used, (c) how the materials were used, and (d) the number of educationally deprived children in contact with the materials.

For the period of time covered by the survey, 3,131 requests were filled; 1,647 surveys were returned. Results indicated that usage was heaviest in the primary grades (46%), in the subject areas of reading (45%) and social studies (29%). Respondents indicated that 44,888 Title-I-eligible pupils (an average of 27.3 per piece of materials requested) were served. Materials were used to supplement, reinforce, and introduce lessons (in that order). While the materials were on loan in the schools, 74% were used on a daily basis, 22% weekly, and 4% monthly.

Objective 2: During the school year, the coordinator of the Multimedia Center will provide each new paraprofessional aide with a minimum of 2½ hours of in-service training in the classroom use of audiovisual and other instructional materials. An activity log of the training will be maintained by the coordinator.

This objective was attained.

The Multimedia Center Parent Aide In-Service Questionnaire was distributed to all aides in six schools (N=22) that received in-service training. Project records showed that all in-service sessions were at least three hours in duration. All aides reported their in-service sessions lasted at least three hours. Additionally, 20 of the 22 aides (91%) who completed the form responded that they were very satisfied with the quality of their in-service training. The respondents indicated that their training included the proper operation and care of audiovisual equipment, and the teaching of techniques for use with audiovisual equipment. Also, over 75% of the aides reported that they used the information gained from the in-service sessions in the classroom.

Objective 3: During the school year, the coordinator of the Multimedia Center will provide sixth-grade pupils selected by their schools for participation in Cadet Corps with a minimum of 1½ hours of training in the use of audiovisual hardware. An activity log of the training will be maintained by the coordinator.

This objective was attained.

Project records indicate that 127 fourth- to eighth-grade students in 30 schools received in-service training as new members of their respective school's Cadet Corps. The Multimedia Center Principal's Evaluation of Cadet Corps Form was distributed to 30 principals whose students received the training. Twenty-four principals responded, indicating that the training sessions lasted an average of three hours. The principals reported that 225 students in Grades 4-8 participated in the Cadet Corps during the school year. Of the 24 principals, 21 (87%) rated the performance of the Cadet Corps from "good" to "excellent."

Students were responsible for operating audiovisual equipment--16MM movie, 8MM movie, filmstrip, and slide projectors, tape recorders, record players, listening centers, and language masters.

SUMMARY AND CONCLUSIONS

The Multimedia Center was designed to provide audiovisual and other instructional materials and support services to Title I schools. The project's intended mode of operation was implemented with materials being provided and utilized in classes in eligible-participating schools.

Multimedia Center records indicated that 1,875 items were available for circulation. Project records show that 6,863 requests were filled, with loan limits ranging from one week to one semester.

The project attained its objectives of providing audiovisual and instructional materials, and in-service training for paraprofessional aides and Cadet Corps students. From September to December 1975, teachers requesting Multimedia Center materials were asked to complete a questionnaire. Results of the questionnaire indicated that usage was heaviest in the primary grades in the subject areas of reading and social studies. Respondents reported that 44,888 students (an average of 27.3 per piece of material requested) were served by project materials; the materials were used to supplement, reinforce, and introduce lessons. Twenty-two aides in six schools and 127 students received three-hour in-service training in the operation and care of audiovisual material and hardware.

TABLE 1

USAGE OF MULTIMEDIA CENTER MATERIALS REPORTED BY TEACHERS

Subject Area	Total Uses	Type of Materials							
		Films	Film-Strips	Cas-settes	Records	Learning Kits	Trans-parencies	Games	Other*
Reading	3,236	656	444	730	144	273	214	151	624
Soc.St./Guidance	1,875	1,036	157	46	197	130	38	0	271
Science	688	451	82	1	8	31	25	0	90
Mathematics	543	85	43	48	49	91	43	63	121
Art or Music	413	134	0	0	195	24	1	4	55
Phys./Health Ed.	103	79	0	0	0	0	1	0	23
Foreign Language	5	2	0	0	1	0	2	0	0
Other	0	0	0	0	0	0	0	0	0
Total	6,863	2,443	726	825	594	549	324	218	1,184
Percentage of Uses	100%	35%	11%	12%	9%	8%	5%	3%	17%

*Includes pictures, sound filmstrips, reel to reel tapes, books, and manipulative devices.

OUT-OF-SCHOOL SEQUENCED SCIENCE EXPERIENCES

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

From paired schools, sixth graders from various racial, religious, ethnic, or socioeconomic backgrounds are brought to the Franklin Institute one day per week for a six-week cycle of discovery-oriented workshops, lecture/demonstrations, and discussions on physical and biological science conducted by the Institute staff.

RATIONALE

There is a recognized need to expose urban school children to intercultural learning experiences. Currently the opportunities for interaction between children of different cultures are limited. Standardized tests have shown that Philadelphia's pupils are deficient in science knowledge as well as in basic skills. Often, elementary school teachers have had little training in science teaching and have only limited equipment and materials for teaching science in their classrooms.

One method of meeting the children's needs is to mix culturally different children in an appropriate learning environment such as the Franklin Institute. In the past, intercultural understanding, science learning, and basic skills enrichment have resulted from this approach.

EXPECTED OUTCOMES

It is expected that the project's varied learning activities will broaden and enrich the pupils' knowledge of basic biological and physical science concepts. Also, pupils should develop a greater awareness of the problem of environmental pollution and an understanding of the implications of the world's energy problems.

Project activities are designed to promote friendly, cooperative work between pupils of different backgrounds, and to give the pupils hands-on experiences using stimulating science materials not readily available in their home schools.

MODE OF OPERATION

A sixth-grade class of black public school children is paired with a sixth-grade class of black nonpublic, white public or nonpublic, or Spanish-speaking public or nonpublic school children for science experiences at the Franklin Institute. The paired children meet one day per week for a six-week cycle. The project involves a different pair of schools each Tuesday through Friday, thus involving eight schools per week, or 32 schools (and 32 teachers) in the year's four six-week cycles. Parents are invited and encouraged to participate in project activities.

Each day's session includes an inquiry-based science workshop, lecture/demonstrations followed by related discussion, completion of language-skill worksheets, lunch, guided exploration of the Institute, and occasionally an afternoon field trip relevant to the day's topic. During each activity, children from the two schools are seated alternately so that maximal social interaction is encouraged.

The pupils take home their handmade working models, which illustrate science principles learned at the Institute. Home-school teachers receive booklets as encouragement to conduct follow-up science lessons reinforcing the pupils' cognitive gains.

PREVIOUS FINDINGS

Evaluations from 1967 through 1975 indicated that achievement of project participants showed significant improvement, when measured by the Science Achievement Test given to participants and to a comparison group, and when measured by pretests and posttests given only to participants. Interactions between culturally different pupils were positive, cooperative, and task-oriented, as measured by classroom sociometric instruments. The majority of participating pupils and teachers reported that they considered the project a valuable and enjoyable educational experience.

EVALUATION OF THE CURRENT YEAR

Evaluation of the Out-of-School Sequenced Science Experiences project continued to focus on cognitive gains (as indicated by pretest-to-posttest gains on the Science Achievement Test) and socialization gains (as compiled on the Social-Interaction Observational Checklist). The presence of certain project-specific enabling conditions was noted by means of another observational checklist. A teacher questionnaire was used to gather home-school teachers' opinions of the extent to which the project's goals were attained.

IMPLEMENTATION

In 1975-1976, the project's intended mode of operation was fully implemented.

Conducted in the Franklin Institute museum and classrooms, the project provided a variety of learning experiences to interracially and interculturally paired sixth-grade pupils deficient in knowledge and understanding of basic physical and biological science concepts and basic language-arts and mathematics skills. Pupils from eight Title I public and nonpublic schools were involved in each of four six-week repeated cycles. Through the integrated use of discovery workshops, hands-on activities, lecture-demonstration-discussions, museum exhibitions, and relevant field trips, Franklin Institute instructors exposed pupils to in-depth treatment of science topics covering six major areas: electricity, water, air, motion, light and color, and use of the microscope on plants and animals.

After each lesson, instructors used science work sheets to reinforce basic language-arts and mathematics skills. Work sheets required pupils to define scientific words, describe equipment and experiments, explain scientific phenomena, and conceptualize science principles. Application of basic mathematical operations to science problems was also required. At the end of each cycle a six-page magazine containing stories, opinions, and drawings by pupils describing their experiences in the project was published and distributed to all participants.

The evaluator's observations during more than 20 monitoring visits over four cycles confirmed home-school teachers' and Institute instructors' opinions that the project was educationally relevant, stimulating, and involving. Because of the new definition of Title I pupils this year, low achieving project participants experienced some difficulty with reading and understanding of some instructional materials. A few incidents of intraschool and interschool friction also occurred. In response, science materials were revised at midyear to better match partcipants' reading and cognitive levels, and home-school teachers successfully resolved pupil conflicts.

Most data were gathered via a project-specific observational checklist during 17 systematic observations. In addition, 28 of the 32 home-school teachers participating in four cycles responded to a questionnaire. Data from both sources indicated that project activities were conducted effectively.

During each cycle, chartered buses transported pupils between their home schools and the Franklin Institute as scheduled. During daily sessions, pupils participated in discovery workshops, class lectures and discussions, guided Institute explorations, work sheet completion, and special Institute demonstrations. Field trips were made to the Academy of Natural Sciences, the Belmont water plant, and the Lindenwold High Speed Line.

Teachers reported that Institute instructors effectively communicated scientific information to pupils. Respondents believed that workshop experiments, classroom demonstrations, and Institute exhibits were especially valuable. Fifteen of the 28 responding teachers reported that the science lectures were at their pupils' reading levels, and workshop materials were easy to manipulate. Nineteen thought the Institute staff's instructional methods, emphasizing hands-on, discovery-type workshops, were successful in holding pupils' attention.

Before science lessons were specially modified to match Title I pupils' reading levels, a number of teachers felt the lectures were too long and complicated for their pupils. After modification most teachers were pleased with the shorter, simpler lessons.

The evaluator observed, and more than 90% of the responding teachers reported, that during most sessions science apparatus worked properly, instructors presented directions clearly, pupils used materials in problem-solving ways, pupils were attentive to lecture-demonstrations and actively participated in discussions following them, paired-school pupils maintained assigned alternate seating during most classroom activities, science work sheets were relevant and easily usable, and pupils took home unique materials they used and models they constructed at the Institute.

Twenty-one of the 28 teachers indicated that the topics in most of the sessions were new or unfamiliar to their pupils. Thus, the project successfully exposed pupils to science facts and concepts never encountered in their regular school programs.

Nineteen respondents noted that their pupils interacted with paired-school children during guided explorations of the Institute in one to six sessions. The highest interaction between paired-school pupils took place during discovery workshops and lunches. Moderate interaction occurred during most other major program activities. Twenty-one respondents noted that pupils interacted minimally on bus trips, mainly because they were not seated alternately.

During 3 of 17 recorded observations, the evaluator saw parents observing or actively helping pupils. Eleven teachers reported the presence of one or more parents in one to six sessions.

ATTAINMENT OF OBJECTIVES

Objective 1: At the end of six days of instruction (one day per week over a six-week period) at the Franklin Institute, pupils from one selected learning cycle will demonstrate improved knowledge and understanding of selected basic concepts of physical and biological science as measured by the Franklin Institute Science Achievement Test. Statistically significant ($p<.05$) pretest-to-posttest mean score gains will be accepted as evidence of meaningful progress.

This objective was fully attained.

The Science Achievement Test, a locally-developed, 27-item, criterion-referenced science mastery test, was administered by Institute instructors to 250 third-cycle pupils on the first and sixth weeks of their participation. The test was the most recent version of the curriculum-tailored test used in project evaluations over the past eight years. It was divided into six subtests corresponding to the project's major topics: electricity and magnetism; light and color; motion, force, and energy; water pressure and the water cycle; air pressure and pollution; and microscopy and ecology. The reliability coefficient was .85 (KR-20).

Pupils' mean gain of 4.3 points from pretest to posttest was statistically significant at the .001 level, exceeding the expected criterion level of .05. This result indicated that the project was effective in transmitting basic science facts and concepts to pupils. Considering that the population was of lower achievement level than in previous years, the similarity in gain (similar to a 4.5 gain in 1974-1975) demonstrated the success of the program with pupils more educationally disadvantaged.

Objective 2: During each six-week cycle, pupils of different socioethnic and racial backgrounds will exchange ideas and show an attitude of cooperative work relationships measured by the Social Interaction Observational Checklist so that the number of positive interactions will be at least nine times the number of negative interactions.

This objective was fully attained.

Data were gathered by means of informal observations, Institute instructors' reports, and two locally-developed instruments--an observational checklist detailing the pupils' verbal and nonverbal social interaction and a home-school teacher questionnaire. During 17 monitoring visits randomly spaced over four cycles, the evaluator used the checklist to categorize verbal and nonverbal, positive and negative, and cognitive and affective pupil communication.

In the majority of cases, pupils were found to interact in an increasingly positive way with pupils from the racially, ethnically, and/or culturally different paired school. Observational checklist data indicated the number of positive interactions was 13.8 times the number of negative interactions, exceeding the criterion. In most observed verbal and nonverbal contacts, pupils worked and played cooperatively, freely revealing their feelings and ideas and accepting those of others.

The evaluator randomly selected 42 pupils and for five minutes observed each of their interactions with pupils from the paired school. Data showing amounts and types of social interaction are summarized in Table 1. Of the 42 observed pupils, 35 interacted socially and communicated with pupils from the paired school. The majority of interactions were positive or cooperative. In 35 of 37 verbal exchanges and 34 of 37 nonverbal exchanges the evaluator saw pupils cooperatively talking about their tasks, asking and answering questions, handing materials to each other, helping each other to build models, smiling, nodding, and sometimes laughing as they openly expressed their own feelings and accepted the feelings of their partners.

A 21-item questionnaire was distributed on the last days of each cycle to the 32 home-school teachers. Most of the 28 respondents reported that their pupils actively exchanged ideas, information, and opinions with paired-school pupils and worked cooperatively on project activities. Fifteen of them thought that as the program progressed, paired-school pupils interacted more intensely with one another.

Fifteen teachers noted positive attitudinal changes mainifested by their pupils' talking to paired-school pupils, learning their names, speaking in complimentary ways about them, exchanging pictures, and expressing regret in leaving them. They felt that pupils from the two schools began to interact according to personality rather than ethnic background, and that the program fostered good feelings because activities called for cooperation rather than competition. There were some reports of negative interactions. Teachers believed this was a result of low achievers' frustration with the reading and cognitive levels of materials.

Objective 3: During each six-week cycle all pupils will have been provided with science-content-based language-arts activities (including the completion of a minimum of six work sheets and the production of a science newsletter) as determined by a project-specific observational checklist and a teacher questionnaire.

This objective was fully attained.

The evaluator's observations, survey responses from home-school teachers, and reports by Institute instructors indicated that oral and written language-arts activities concerning science topics were a central part of each session. Checklist and questionnaire data confirmed that pupils completed six work sheets each cycle. The best pupil essays and drawing contributions, taken from their work sheets, were compiled and reproduced in a magazine, "The Franklin Flyer," distributed to all project participants at the end of each cycle. Also, pupils were encouraged to verbally express the science principles they had discovered in their workshop experiences. Institute instructors stimulated pupils to structure their thinking and clarify their verbal expression.

Twenty-two of 28 teachers responding to the questionnaire felt that the program enabled pupils to improve their language-arts skills through work sheets, question-and-answer sessions, and discussions. Sixteen respondents also felt pupils improved their basic mathematics skills using work sheets and classroom mathematics problems.

SUMMARY AND CONCLUSION

Conducted in the Franklin Institute museum and classrooms, the Out-of-School Sequenced Science Experiences project provided science, language-arts, and mathematics learning experiences to 1,120 interracially and interculturally paired sixth-grade pupils. Each of the project's four six-week cycles involved Title I pupils from eight public and nonpublic schools.

Evaluator observations during 20 visits, and home-school and Institute instructors' questionnaire responses indicated that the project was fully implemented according to the intended mode of operation. Teachers perceived the project as educationally relevant and stimulating.

The project's cognitive, social interaction, and basic-skill objectives were attained. Pupils increased their average score significantly (by 4.3 points) on the 27-item Science Achievemt Test. Language-arts activities were provided within the science curriculum. Data gathered from the Social Interaction Observational Checklist, evaluator observations, and teacher questionnaires indicated that with a few exceptions, paired pupils from divergent racial, religious, and socioeconomic backgrounds interacted in a cooperative way.

The extremely high pupil attendance rate, averaging over 96% across all sessions and cycles, was seen by the teachers and the evaluator as a major indication of pupils' high interest and sustained involvement in the project.

TABLE 1

INTERACTIONS OF 42 PUPILS WITH PUPILS FROM PAIRED SCHOOL DURING RESPECTIVE FIVE-MINUTE OBSERVATION PERIODS

Type of Interaction	Primarily Positive	Primarily Negative	No Interaction
Verbal	35	2	5
Nonverbal	34	3	5

SCHOOL-COMMUNITY COORDINATOR

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The project employs community residents as school-community coordinators to work with parents, students, and school personnel in transmitting information, facilitating mutual understanding, and encouraging participation between the school and the community.

RATIONALE

This project attempts to increase communication between Title-I-eligible students, their parents or guardians, and the personnel in schools who serve them. Through in-school student conferences, parent conferences arranged for school staff members, and visitations to students' homes by the SCC, school problems that affect individual children's academic standing and school morale can be obviated. Many problems pertaining to students' health, discipline, attendance, or basic skills can be resolved through the coordinator's personal contacts with the home.

EXPECTED OUTCOMES

It is expected that the school-community coordinator will facilitate improved communication and understanding between the school, parents, and the community, as well as increased participation by school personnel and parents in school-community activities. But especially, an increased emphasis on service to children will allow response to many students' problems which might otherwise go unnoticed.

MODE OF OPERATION

School-community coordinators are assigned to participating elementary and secondary schools near their homes (approximately one or two school-community coordinators for every 1,000 to 3,000 students). One coordinator is usually assigned to an elementary school, and two are assigned to each junior or senior high school.

The coordinators' flexible work hours permit them to work various times of the day as well as on weekends. Coordinators function as a liaison between the school and the community, disseminating information, keeping each group informed of the other's activities, and visiting students' homes to acquire information which will enable the school to function with greater awareness of the community. In further meeting the needs of Title I parents and children, they work with community organizations and agencies when necessary to assist in solving specific family problems.

Principals, teachers, counselors, and nurses inform SCCs of problems or needs of individual Title I pupils. The SCCs follow up these referrals by visiting or calling the homes, or by talking to the children. Responses are then sent to the persons making the referrals.

The project administrators include the project director and three supervisors (professionally trained in guidance and social work). Under their supervision, 12 area coordinators (promoted from the position of SCC) assist and advise groups of SCCs in their daily activities.

PREVIOUS FINDINGS

Previous SCC evaluations indicated that community residents who were visited by the coordinators were more knowledgeable about the school and participated in more school activities than those community residents who did not receive visits.

In 1973-1974, school personnel, community leaders, and organization members expressed the feeling that both the SCCs and the area coordinators performed well as liaisons between the home, school, and community.

In 1974-1975, the SCC acted as the major communication link and interpreter between the school and the home. SCCs made home visits, conducted cluster meetings for parents, attended community meetings, developed written communications, and made presentations at faculty meetings, in accordance with the project's stated objectives. Area coordinators continued to fulfill their role.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the School-Community Coordinator project focused on (a) the specific duties of the SCC and the area coordinator and (b) the extent to which the average SCC and the average area coordinator achieved the specified behavioral standards. The team conducted the evaluation through on-site case studies, interviews with SCCs, and the collection of data from monthly reports.

IMPLEMENTATION

In 1975-1976, the project's intended mode of operation was fully implemented.

The evaluation team conducted half-day case studies of the activities of 26 SCCs and interviewed 13 other SCCs at 32 schools. These case studies and interviews helped cross-validate the reports collected by the evaluators. Monthly reports, which summarized the out-of-school conferences, in-school student contacts, community meetings attended, and cluster meetings held by SCCs, were collected by the evaluation team.

The project conducted meetings and provided training to the SCCs to emphasize the project's aim of a greater focus on individual pupil needs. Newly developed by every SCC was a file or a list of Title-I-eligible students and an organized file containing requests and reports on services they provided.

During on-site visits, Title-I-eligible students were observed seeking the SCC's assistance in solving their school-related problems. The SCCs served parents of Title-I-eligible students by visiting them at home in order to provide them with ideas for reinforcement with basic skills, to discuss available school services and programs, to encourage participation in school activities, to arrange conferences with the principal and members of the school staff, and to disseminate school and community information. SCCs also arranged for community agencies to take care of special family needs.

The SCCs attended community meetings and worked with community projects of interest to the Title-I-eligible students and their parents. School-community understanding was fostered by the SCCs in a great many ways.

The Spanish-speaking SCCs, in schools with a large population of students having Spanish surnames, served as interpreters for principals, staff, and parents. SCCs served principals, teachers, counselors, school nurses, and other staff members by following up their requests for service by making appointments and investigations; delivering materials and information; and assisting with the completion of applications for lunch or health services. Continuous action was taken on staff referrals until the cases were brought to closure. Staff requesting service received a written report.

Three case studies of area coordinators' (ACs) activities for one-half day were conducted by the evaluation team, and monthly reports were collected. The ACs were observed coordinating the work of the SCCs and acting as a liaison between the schools and the community. During the extended absence of one AC, the project director served the SCCs for whom the absent AC was responsible. Area coordinators met with their supervisors and received guidance from the project director and supervisors on an ongoing basis.

ATTAINMENT OF OBJECTIVES

Objective 1: To have each SCC hold a minimum of 75 out-of-school conferences including home visits each month relative to the needs of participating ESEA Title I students in the areas of attendance, basic skills and work habits, behavior, health, and general well-being. These conferences will emanate from school or self-initiated referrals. This will be verified by inspection of the monthly reports and Request for Service forms that will be maintained by the SCCs.

This objective was partially attained.

For the three sample months of November, January, and March, the evaluators tabulated and averaged data from the monthly reports which summarized the SCCs' daily logs.

SCCs held an average of 73.2 out-of-school conferences during the three sample months. However, SCCs averaged more than 75 out-of-school conferences during March when the average number of monthly out-of-school conferences was 82.3. The objective was almost achieved in November when the SCCs held an average of 71.0 out-of-school conferences; 66.3 out-of-school conferences were held in January. This year's inclement weather, combined with the increase in illness of SCCs, were factors contributing to the difficulty of attainment of this objective. In addition, no provisions were made to delete sick days or severe weather days form the averaging process for individual SCCs. Monthly reports were never received from all 183 SCCs during any of the three sample months. Data concerning the number of reports submitted and those SCCs completing the stipulated number of out-of school conferences are summarized in Table 1.

Examiniation of Request for Service files, during 26 case studies, indicated that 25 of the 26 coordinators received most requests related to students' needs in either attendance or behavior. Twenty-one of the 26 SCCs had requests for service in the area of attendance, which included absence, lateness, and cutting; twenty of the 26 SCCs had requests for service in the area of behavior. Attendance and behavior were the leading areas of referrals for 16 of the 26 SCCs. Attendance was indicated as the highest area for requests for service among the 13 SCCs interviewed.

Objective 2: To have each SCC have a minimum of 20 in-school contacts a month with participating ESEA Title I students relative to their needs. This will be verified by inspection of monthly reports that will be maintained by the SCCs.

This objective was attained.

Information gathered from the data from the monthly reports for three sample months indicated that the SCCs averaged 30.2 in-school student contacts for the three sample months.

During on-site visits with SCCs, the evaluators observed students readily seeking the SCC's assistance in solving their problems. Students were given advice and referred to counselors when necessary.

Objective 3: To have each SCC plan and execute a minimum of 10 cluster meetings a year (approximately one each month) for ESEA Title I parents or guardians relative to local school/family needs. This will be verified by inspection of monthly reports that will be maintained by the SCCs.

This objective was fully attained.

An end-of-year School Community Coordinator Project Survey of cluster meetings was conducted in May. Data from 155 respondents were tabulated and averaged. The average number of parents' meetings planned and executed was 11. A wide variation existed among the SCCs as to the number of meetings they conducted. Eighty-eight of the 155 respondents (57%) conducted cluster meetings in conjunction with another SCC one or more times during the year.

Objective 4: To have the SCCs attend, as their schools' designated representatives, a minimum of one community meeting per month, related to the needs of their schools' participating ESEA Title I students. This will be verified by inspection of monthly reports that will be maintained by the SCCs.

This objective was attained.

Information gathered from the monthly reports for three sample months indicated that the average SCC attended two community meetings as the school's designated representative.

Objective 5: To have the project's area coordinators (ACs) assist and monitor the SCCs and act as another communication link between the school and the parents and guardians of participating ESEA Title I students. The ACs will also disseminate information to the SCCs and the community. This will be verified by inspections of monthly reports maintained by ACs.

This objective was fully attained.

Eleven of 12 area coordinators maintained monthly reports. (One had an extended illness.) Data from the monthly reports for three sample months--November, January, March--are summarized in Table 2. Observations of ACs assisting the SCC were made by the evaluators during the three case studies discussed in the implementation section of this report.

The 11 ACs served an average of 15 SCCs and made an average of 28 visits to SCCs during the three sample months. The average AC made 26 visits in November, 25 visits in January, and 33 visits in March.

The ACs provided the assistance necessary for the SCCs to follow their new procedures for maintaining and filing Request for Service forms in the specific areas of attendance, basic skills and work habits, behavior, health, and other. They further helped the SCCs by helping them secure and organize lists of children eligible for their services. With additional clerical tasks for the SCC, the ACs helped them schedule and execute their activities for the smooth operation of their work. The ACs made themselves and their resources readily available to the SCCs. The ACs kept the SCCs well-informed and served as a positive reinforcement.

During three sample months, the ACs attended an average of six community meetings and four cluster meetings for parents. The ACs disseminated information to the parents and the community at the meetings.

SUMMARY AND CONCLUSIONS

The SCCs concentrated their services on Title-I-eligible students and their parents or guardians. They devoted primary attention to the attendance, basic skills and work habits, behavior, health, and the general well-being of these students. SCCs also acted as a communication link between their neighborhood school, the community, and local organizations.

The current year's evaluation used on-site case studies of SCCs and ACs, interviews with SCCs, and data collected from monthly reports. The project's intended mode of operation was fully implemented.

Four of the five stated project objectives were fully attained. During three sample months, the SCC held an average of 73.2 out-of-school conferences instead of 75, had 30.2 in-school student contacts, and attended two community meetings as the school's designated representative. The average SCC sponsored 11 cluster meetings during the year.

Area coordinators (ACs) responsible for groups of SCCs, visited them at least once a month and assisted them by providing information, answering questions, and checking records. Cluster meetings and community meetings were attended by the ACs. The ACs also served as a key communication link between the neighborhood schools, the parents, the community, and local organizations.

The SCC project continues to provide that unique and valuable link between the school and the community with the additional new focus on individual pupil needs, which has increased its impact.

TABLE 1

COMPLETION OF OUT-OF-SCHOOL CONFERENCES BY SCCs DURING THREE SAMPLE MONTHS

Month	SCCs Submitting Reports	SCCs Reporting at Least 75 Conferences
November 1975	169	83
January 1976	109	49
March 1976	145	120

TABLE 2

ACTIVITIES OF 11 AREA COORDINATORS (ACs) IN SCC PROJECT: MONTHLY AVERAGE FOR NOVEMBER, JANUARY, AND MARCH

Item	No. of SCCs Assigned	Visits Made to SCCs	Community Meetings Attended	Cluster Meetings Attended
Range among ACs	12-22	7-82	0-9	1-9
Average per AC	15	28	6	4

SPEECH AND HEARING

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Speech and Hearing project is designed to enable children with speech and hearing problems to function more effectively in the regular classroom. It has a weekday component and a Saturday clinic component.

RATIONALE

Many Title I children have speech and hearing handicaps which prevent them from achieving expected outcomes in the regular school environment. Speech and hearing defects cause learning deficiencies as well as difficulties in interpersonal communication, personality development, and social adjustment. Because family and existing school resources are not sufficient to correct these defects, a specialized therapy resource is crucial.

EXPECTED OUTCOMES

The broad goal of the project is to improve the speech and hearing of Title-I-eligible pupils who have moderate to severe handicaps.

MODE OF OPERATION

In the weekday component, speech and hearing therapists are responsibile for providing services to a specified number of eligible schools. From each school population, the therapists select eligible children for inclusion in their case loads using the following order of priority: (a) older and more severe cases, (b) younger children with unintelligible speech, (c) children with organic disorders such as cleft palate, hearing loss, and central nervous system disorders.

Each therapist's case load is approximately 100 children. In groups of four or five, these children meet for therapy once or twice weekly for approximately 30 minutes per session.

In the Saturday clinic component, seven clinics, each staffed by a qualified speech therapist, provide Saturday morning therapy programs in locations throughout the city. The program in each clinic follows a general plan: three one-hour periods between 9 a.m. and 12 noon for homogeneous groups of four pupils each, one half-hour period from 12 until 12:30 for individual therapy, one half-hour clinical period from 12:30 until 1 p.m., and parent consultations during each period.

A consulting therapist screens applications forwarded from the schools, examines the applicants, and consults with the parents. A list of eligible children is compiled and utilized in filling each clinic.

PREVIOUS FINDINGS

Since its inception in the 1968-1969 school year the project has successfully attained all of its stated objectives during each school year. Therapy was provided to approximately 1,000 children each year in the weekday component and approximately 100 each year in the Saturday clinic component. Between pretests and posttests each year, the participants have shown significant score gains on either the Templin-Darley Screening Test or the Templin-Darley Diagnostic Test of Articulation. The project's expected rates of improvement and correction of defective articulation and stuttering were consistently realized.

EVALUATION OF THE CURRENT YEAR

In general, the current year's evaluation of the Speech and Hearing project examined the same aspects of the project as previous evaluations.

IMPLEMENTATION

During the 1975-1976 school year, the former Speech Therapy Clinics project became a component of the Speech and Hearing project, which now consists of a weekday component and a Saturday clinic component.

The project's weekday component was only partially implemented in that the expected number of staff members was not available to provide service for the entire school year. Instead of the expected eight speech therapists, six started service in September. One therapist went on maternity leave at the end of January; one went on extended sick leave in February. An additional therapist was hired in January, filling one of the original two vacancies. Therefore, only four speech therapists maintained caseloads of approximately 100 children each for the entire school year. The weekday component's ninth position, a hearing therapist, remained vacant for the second consecutive year. Consequently, pupils did not receive the intended amount of therapy.

The services provided by the four speech therapists to pupils with defective articulation are summarized in Tables 1 and 2. Services to pupils who stutter are summarized in Table 3. The caseloads of the four weekday speech therapists totaled 481 defective articulation and 44 stuttering pupils. Of the defective articulation pupils, 470 received 9,543 treatment sessions. The stuttering pupils received 915 treatment sessions. Groups of four or five children met for therapy once or twice weekly for approximately 30 minutes per session.

The project's Saturday component also was partially implemented. Two therapist positions remained vacant for the entire school year.

At nine clinics located throughout the School District, eight Saturday clinic therapists administered 1,251 therapy sessions to 87 defective articulation pupils and 106 therapy sessions to 11 stuttering pupils. Each clinic provided Saturday morning small-group and individual therapy programs for pupils with defective speech.

ATTAINEMENT OF OBJECTIVES

Objective 1: Pupils receiving weekday therapy for the correction of defective sounds will experience correction of those sounds to the extent that there will be a statistically significant gain ($p<.05$) in mean score from their October pretest to their May posttest on the Templin-Darley Diagnostic Test of Articulation.

This objective was attained.

The Templin-Darley Diagnostic Test of Articulation was administered twice to a stratified random sample of all project pupils receiving articulation therapy. The sample of 117 pupils included 24% of the total case load. The test was individually administered by the therapists in October and May. Results are shown in Table 4.

A t test for correlated samples was applied to determine the statistical significance of the difference between mean pretest and posttest scores. Gains for each therapist's sample and combined sample gains were found to be statistically significant at the .05 level (alpha adjusted to .025 for multiple comparisons using the same subjects).

Objective 2: At the completion of the project term, 70% of all project pupils receiving weekday therapy for stuttering will show a decrease in the severity and/or incidences of stuttering behaviors, as evidenced by ratings of at least "improved" by their respective therapists on the Stuttering Evaluation survey form.

This objective was attained.

Each therapist rated her stuttering pupils on the project's Stuttering Evaluation form at the conclusion of the current school year, using ratings of "improved," "remained the same," or "regressed." The therapists' ratings for the 44 stuttering pupils are summarized in Table 5. Thrity-one (70%) of the pupils were rated "improved."

Objective 3: At the completion of the project term, 20% of the pupils receiving weekday therapy for the correction of defective sounds and 15% of the pupils receiving therapy for stuttering will be dismissed from further therapy with the note "dismissed corrected" recorded on either the Defective Articulation Summary form or the Stuttering Evaluation form.

This objective was partially attained.

Each therapist rated her defective articulation pupils using the project's Defective Articulation Summary form and her stuttering pupils using the project's Stuttering Evaluation form. Possible ratings were "corrected," "dismissed improved," "drop," and "continue." All 481 defective articulation pupils and 44 stuttering pupils were rated.

Individual therapist's ratings for defective articulation pupils are summarized in Table 6; ratings for stuttering pupils are summarized in Table 7. The 24% correction rate for defective sounds exceeded the 20% criterion. However the 9% correction rate for stuttering failed to meet the 15% criterion.

Objective 4: At the completion of the project term, 50% of all pupils receiving weekday therapy for defective hearing will show improvement in at least one of their defective auditory skills, as evidenced by the hearing specialist's rating of "improved" on the Hearing-Handicapped Summary form.

This objective was not applicable to the current year's evaluation because the position of hearing therapist remained vacant for the entire school year.

Objective 5: Pupils receiving Saturday therapy for the correction of defective sounds will experience correction of those sounds to the extent that there will be a statistically significant gain ($p < .05$) *in mean score from their October pretest to their May posttest on the Templin-Darley Screening Test of Articulation.*

This objective was attained.

The Templin-Darley Screening Test of Articulation was individually administered to all Saturday clinic children by clinic therapists in October and May. Pretest and posttest mean scores were compared using a t test for correlated samples.

Results for 67 pupils are summarized in Table 8. The gain of nearly eight points between pretest and posttest was statistically significant at the .05 level.

Objective 6: At the completion of the project term, 20% of all project pupils receiving Saturday therapy for stuttering will show a decrease in the severity and/or incidences of stuttering behaviors, as evidenced by ratings of at least "improved" by their respective therapists on the Stuttering Evaluation survey form.

This objective was attained.

Using the project's Stuttering Evaluation form, each clinic therapist subjectively rated her stuttering pupils as "improved," "remained the same," or "regressed" at the conclusion of the school year. Progress by the 11 pupils receiving therapy for stuttering is summarized in Table 9. Although the number of cases was small, the 45% improvement rate far exceeded the 20% criterion.

Objective 7: At the completion of the project term, 15% of the pupils receiving Saturday therapy for the correction of defective sounds and 15% of the pupils receiving therapy for stuttering will be dismissed from further therapy with the note "dismissed corrected" recorded on either the Defective Articulation Summary form or the Stuttering Evaluation form.

This objective was attained.

Each clinic therapist used the project's Defective Articulation Summary form to rate her defective articulation pupils and the project's Stuttering Evaluation form to rate her stuttering pupils. Eighty-seven defective articulation and 11 stuttering pupils were rated as "corrected," "dismissed improved," "drop," or "continue."

The ratings are summarized in Table 10. The combined ratings from all clinic therapists indicated that 21 defective articulation pupils (24%) and 3 (37%) stuttering pupils were "corrected."

SUMMARY AND CONCLUSIONS

The Speech and Hearing project was created to improve the speech and hearing of pupils with moderate to severe handicaps which cause learning deficiencies and difficulties in interpersonal communication, personality development, and social adjustment.

During the current school year the project incorporated the Speech Therapy Clinics project as a second component of its operation.

The project's weekday and Saturday Clinic components were partially implemented according to intended modes of operation (not fully staffed). Pretest to posttest comparisons and rating scales provided data indicating that all of the project's stated objectives were attained. Defective sounds and stuttering of children receiving therapy decreased and expected proportions of defectively articulating and stuttering pupils were dismissed as corrected. Improvement of auditory skills could not be determined becasue the project had no hearing specialist this year.

TABLE 1

WEEKDAY SPEECH AND HEARING SERVICES PROVIDED TO DEFECTIVE ARTICULATION PUPILS

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected without Further Treatment	Carryovers Untreated for Other Reasons[1]	Pupils Treated during Current Year	Total Treatment Sessions	Average Treatment Sessions per Pupil
A	140	0	0	140	2,945	21.0
B	81	4	2	75	1,951	26.0
C	111	1	3	107	1,992	18.6
D	149	0	1	148	2,655	17.9
Four Therapists[2]	481	5	6	470	9,543	20.3

[1] Category may include pupils who moved, transferred, graduated, or were dismissed improved.

[2] The table omits services provided by a fifth therapist who began service near midyear.

TABLE 2

WEEKDAY SPEECH AND HEARING SERVICES PROVIDED TO STUTTERING PUPILS

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected without Further Treatment	Pupils Treated during Current Year	Total Treatment Sessions	Average Treatment Sessions per Pupil
A	7	0	7	160	22.9
B	8	0	8	201	22.3
C	20	0	20	408	20.4
D	9	0	9	146	16.2
Four Therapists[1]	44	0	44	915	20.8

[1] The table omits services provided by a fifth therapist who began service near midyear.

TABLE 3

SATURDAY SPEECH AND HEARING SERVICES PROVIDED TO DEFECTIVE ARTICULATION (DA) AND STUTTERING (ST) PUPILS

Type of Speech Defect	Combined Case Loads Including Carryovers from Last Year	Pupuils Dismissed Corrected without Further Treatment	Pupils Treated during Current Year	Total Treatment Sessions	Average Treatment Sessions per Pupil
DA	87	0	87	1,251	14.4
ST	11	0	11	106	9.6

TABLE 4

GAINS ON TEMPLIN-DARLEY DIAGNOSTIC TEST OF ARTICULATION BY WEEKDAY SPEECH-AND-HEARING PROJECT PUPILS

Therapist	Assigned Case Load	Cases Sampled	Pretest Mean Score	Posttest Mean Score	Gain
A	140	45	135.8	156.0	20.2*
B	81	17	146.5	163.4	16.9*
C	111	18	137.6	152.7	15.1*
D	149	37	140.8	164.1	23.3*
Four Therapists[1]	481	117	139.2	159.1	19.9*

*Significant beyond the .05 level.

[1] The table omits services provided by a fifth therapist who began service near midyear.

TABLE 5

PROGRESS BY STUTTERING PUPILS IN WEEKDAY SPEECH AND HEARING PROJECT

Therapist	Case Load Including Carryovers from Last Year	Pupils Who Improved	Pupils Who Remained the Same	Pupils Who Regressed	Pupils Not Rated
A	7	7	0	0	0
B	8	4	4	0	0
C	20	12	6	2	0
D	9	8	1	0	0
Four Therapists[1]	44 (100%)	31 (70%)	11 (25%)	2 (5%)	0 (0%)

[1] The table omits services provided by a fifth therapist who began service near midyear.

TABLE 6

CORRECTION OF DEFECTIVE ARTICULATION IN WEEKDAY SPEECH AND HEARING PROJECT

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected	Pupils Dismissed Improved	Pupils Dropped for Extraneous Reasons	Pupils Continued to Next Year
A	140	38	9	6	87
B	81	11	3	3	64
C	111	29	1	6	75
D	149	38	2	8	101
Four Therapists[1]	481 (100%)	116 (24%)	15 (3%)	23 (4%)	327 (67%)

[1] The table omits services provided by a fifth therapist who began service near midyear.

TABLE 7

CORRECTION OF STUTTERING IN WEEKDAY SPEECH AND HEARING PROJECT

Therapist	Case Load Including Carryovers from Last Year	Pupils Dismissed Corrected	Pupils Dropped for Extraneous Reasons	Pupils Continued to Next Year
A	7	0	3	4
B	8	1	2	5
C	20	2	1	17
D	9	1	0	8
Four Therapists[1]	44 (100%)	4 (9%)	6 (14%)	34 (77%)

[1] The table omits services provided by a fifth therapist who began service near midyear.

TABLE 8

GAIN ON TEMPLIN-DARLEY SCREENING TEST OF ARTICULATION
BY STAURDAY SPEECH-AND-HEARING PROJECT PUPILS

Combined Case Loads	Cases Sampled	Pretest Mean Score	Posttest Mean Score	Mean Gain
87	67	32.5	40.2	7.7*

*Significant beyond the .05 level.

TABLE 9

PROGRESS BY STUTTERING PUPILS IN SATURDAY SPEECH AND HEARING PROJECT

Combined Case Loads Including Carryovers from Last Year	Pupils Who Improved	Pupils Who Remained the Same	Pupils Who Regressed
11	5	5	1

TABLE 10

CORRECTION OF DEFECTIVE ARTICULATION (DA) AND STUTTERING (ST) IN SATURDAY SPEECH AND HEARING PROJECT

Type of Speech Defect	Combined Case Loads Including Carryovers from Last Year	Pupils Dismissed Corrected	Pupils Dismissed Improved	Pupils Dropped for Extraneous Reasons	Pupils Continued to Next Year
DA	87 (100%)	21 (24%)	4	18	44
ST	11 (100%)	3 (27%)	0	6	2

SUMMER SPECIAL EDUCATION

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

The Summer Special Education project provides instruction and therapy services for emotionally disturbed, visually handicapped, retarded trainable, hearing-handicapped, and orthopedically handicapped students, and job-coordinator service for retarded educable students.

RATIONALE

The Summer Special Education project extends the instructional and therapeutic services offered during the regular school year. Continuity and consistency throughout the year are necessary to meet the needs of the students served by the project: (a) emotionally disturbed children require extensive support and direction within a structured, stable learning environment in order to make the socioemotional adjustments necessary for learning; (b) visually handicapped students need a year-round program in order to acquire a large number of special skills, such as orientation and mobility training, in addition to academic proficiency; (c) retarded trainable children need constant reinforcement for the maintenance of acquired training and vocational skills; (d) hearing-handicapped students have concomitant language handicaps which must be systematically met throughout the year in order to avoid regression of communication skills; (e) orthopedically handicapped students need to maintain their prescriptive therapy programs on a full-time basis; and (f) employed retarded educable students need the continuous support and services provided by the job coordinator in making the personal and social adjustments necessary for successful year-round employment.

Many of the participating students have a limited background of experiences. The Summer Special Education project provides an opportunity for them to participate in field trips and other enrichment activities not included in their regular school programs.

EXPECTED OUTCOMES

It is expected that the reinforcement and enrichment experiences which the summer project provides will increase the scope of the regular school-year curriculum and reduce the summer regression that would otherwise occur.

MODE OF OPERATION

Summer Special Education programs are conducted by special education teachers and a job coordinator who are also in contact with the project's students during the regular school year. The project intends for public and private school students to continue their regular school programs, to participate in enrichment activities where possible, and/or to have their regular school-year classroom training and counseling extended to their places of employment in the summer project. Students at the Logan School for the visually handicapped, students at the Martin School for hearing-handicapped, retarded trainable students at the Muhr, Brooks, Bartlett, and Spruance Work Training Schools; and orthopedically handicapped students at the Widener Memorial School continue their regular school programs in the summer project in order to extend their competency levels.

The job coordinator makes citywide, on-site visits to the employed retarded educable students and their employers, to ensure satisfactory work relationships, identify available entry-level jobs for placement during the regular and summer programs, and prepare reports about students' wages, productivity, and adjustment to assigned tasks.

PREVIOUS FINDINGS

Descriptive evaluations by the project director, classroom observations, and teacher reports based on individual checklists for students indicated that school services available during the regular year were also provided in the summer project, and that some enrichment activities also were provided.

All instructional programs attained their stated objectives for students to maintain or improve their skills. Progress reports indicated that at least 97% of the students in the project's instructional programs improved or maintained their levels in academeic, social, and vocational skills, and in physiological therapy. In the average summer, 180 students were placed in work situations by the project.

Average daily attendance for the Summer Special Education programs ranged between 79% and 94%.

EVALUATION OF THE CURRENT YEAR

The current evaluation of the Summer Special Education program examined the activities of the job coordinator and assessed both the project's services and the students' progress.

IMPLEMENTATION

In 1975-1976, the project's intended mode of operation was fully implemented. Information on the project's instructional programs--enrollment, number of classes, days and hours of class operation, and average daily attendance--is shown in Table 1. In total, 525 students were enrolled in the project's instructional programs; average daily attendance ranged from 74% to 89%.

The evaluation team surveyed all participating centers and found that the Widener, Martin, and Logan Schools (and several classes for the emotionally disturbed) included enrichment activities in their programs. These classes took field trips to places of interest in Philadelphia. Programs for visually handicapped, hearing-handicapped, orthopedially handicapped, and emotionally disturbed students included social activities such as picnics and outdoor play days. Teachers of classes for the emotionally disturbed reported increased flexibility in their summer programs, to allow students to pursue personal interests not covered during the regular term.

Several summer programs evaluated and oriented students who had not participated in programs during the regular school year. Widener School operated a kindergarten-level orientation and evaluation class for 12 children applying for admittance. The staff conducted observations of learning behaviors exhibited during the summer, and considered the evaluations of a physical therapist. In this way, they were able to assess each child's potential to benefit from the regular program. On the basis of summer performance, 8 of the children were approved for admission to Widener's kindergarten.

Visually handicapped children who were enrolled in Logan School's regular-term itinerent program attended the school for the summer session. This gave the staff an opportunity to reassess students' needs.

Many retarded trainable students who had no previous vocational training participated in four summer-assembly and packaging workshops and one building sanitation workshop. This allowed teachers to assess their potential for further training in these areas.

ATTAINMENT OF OBJECTIVES

Objective 1: Summer regression of Orthopedically Handicapped students in the project will be controlled to the extent that in each of two areas (academic skills and social skills) 80% of students will maintain their acquired levels of development, as indicated by teachers' end-of-project ratings of students' progress.

This objective was attained.

Teachers used the evaluator-developed individual student report forms for each program to assess academic and social skills. Teachers indicated whether the student improved, showed no change, or regressed in achievement level for each applicable skill. Because many students required individualized instruction, they were not necessarily rated in all skill areas.

Teacher ratings of student progress in academic skills is summarized in Table 2. Of the 109 orthopedically handicapped students rated in reading, 15 (14%) improved and 94 (86%) maintained their levels. Of the 102 orthopedically handicapped students rated in mathematics, 7 (7%) improved and 95 (93%) maintained their levels.

Student progress ratings in social skills are summarized in Table 3. Of 137 orthopedically handicapped students, 25 (18%) improved and 111 (81%) maintained their levels.

Objective 2: At least two-thirds of the Orthopedically Handicapped students in the project will receive physical therapy and/or occupational therapy as verified by evaluators' inspection of teacher records.

The objective was attained.

Of the orthopedically handicapped students at the Widener School, 142 of the 174 received physiological therapy. The program included physical, functional, speech, and occupational therapy, swimming, and perceptual-motor training.

Assessments of student progress in physiological rehavilitation are summarized by type of Therapy in Table 4. Of the 112 students rated, 16 (24%) improved and 95 (85%) maintained their levels.

Objective 3: Summer regression of Visually Handicapped students in the project will be controlled to the extent that in each of three areas (academic skills, daily living skills and handcraft activities) 70% of students will maintain their acquired levels of development as indicated by teachers' end-of-project ratings of students' progress.

This objective was attained.

Evaluation procedures described under Objective 1 were used to asses visually handicapped students' academic skills, daily living skills, and handicraft skills.

Teacher ratings of students progress in academic skills are summarized in Table 2. Of the 44 visually handicapped students rated in reading, 14 (31%) improved and 30 (68%) maintained their levels. All of the 29 students rated in mathematics improved their levels.

Student progress ratings in social skills are summarized in Table 3. Of 45 visually handicapped students, 17 (37%) improved and 28 (62%) maintained their level.

All of the students either maintained or improved their levels of functioning in handicraft skills.

Objective 4: Summer regression of the Trainable Mentally Retarded students in the project will be controlled to the extent that in each of two areas (vocational training skills and social skills) 80% of students will maintain their acquired levels of development as indicated by teachers' end-of-project ratings of students' progress.

This objective was attained.

Evaluation procedures described for Objective 1 were used also to assess vocational skills and social development.

Teacher progress reports showed that of 129 retarded trainable students rated in vocational skills, 60 (46%) improved and 67 (53%) maintained their levels. The evaluators visited the four assembly and packaging workshop, where they observed students performing 17 job tasks.

Of the 129 students rated in social skills, 41 (31%) improved and 88 (69%) maintained their levels, as shown in Table 3.

Objective 5: Summer regression of Emotionally Disturbed Retarded students in the project will be controlled to the extent that in each of two areas (academic skills and social skills) 50% of students will maintain their acquired levels of development as indicated by teachers' end-of-project ratings of students' progress.

This objective was attained.

Evaluation procedures described under Objective 1 were used to assess academic skills and social development. Teacher ratings of students' academic progress are shown in Table 2. Of 45 emotionally disturbed students rated in reading skills, 25 (56%) improved and 19 (42%) maintained their levels. Of the 40 students rated in mathematics, 24 (60%) improved and 16 (40%) maintained their levels.

Of the 45 students rated in social skills, 28 (62%) improved and 15 (33%) maintained their levels, as shown in Table 3.

Objective 6: Summer regression of Hearing Handicapped students in the project will be controlled to the extent in each of two areas (academic skills and social skills) 50% of students will maintain their acquired levels of development as indicated by teachers' end-of-project ratings of students' progress.

This objective was attained.

Evaluation procedures described under Objective 1 were used to assess academic skills and social development. Teacher ratings of students' academic progress are shown in Table 2. Of 41 hearing-handicapped students rated in reading skills, 22 (53%) improved and 19 (46%) maintained their levels. Of the 41 students rated in mathematics, 20 (48%) improved and 19 (46%) maintained their levels.

Of the 32 students rated in social skills, 17 (53%) improved and 13 (40%) maintained their levels, as shown in Table 3.

Objective 7: The project's job coordinator will visit and/or otherwise contact each student job site to provide counsel to participating students and/or their employers as verified by evaluators' inspection of job coordinators records.

This objective was attained.

An activity log was developed by the evaluation team for use by the summer job coordinator. Weekly numerical summaries of activities, such as job-site visits to student workers and contacts with employers, were recorded on the log. The job coordinator kept the log during a six-week period.

In June, 215 students were reported employed. The summer job coordinator made 367 visits to their job sites, and 23 telephone verifications of student employment raised the number of employer contacts to 390.

A member of the evaluation team accompanied the coordinator during a day's activities. At each job site, the coordinator verified the students' employment and discussed the work situation with the employer. Where possible, the coordinator spoke briefly with students to ascertain if they had any problems or questions.

In addition to maintaining employer and employee contact throughout the summer, the coordinator completed a report on each employed student to be used during the school year by the regularly assigned coordinator. The report included total wages earned, taxes paid, and comments on the student's job performance. By providing continuous records on the students, the summer reports contributed to effective job training by the regularly assigned coordinator.

Objective 8: At least 75% of the project's Mentally Retarded students employed during the summer months will maintain their jobs as verified by evaluators' inspection of job coordinators records.

The objective was attained.

The summer job coordinator's records indicated that 190 (88%) of the students continued their employment throughout the summer session.

SUMMARY AND CONCLUSIONS

The Summer Special Education project extends the instructional and therapeutic services that are offered to emotionally disturbed, hearing-handicapped, retarded trainable, orthopedically handicapped, and visually handicapped students during the regular school year. Enrichment activities expand the scope of the regular school-year curriculum. A summer job coordinator provides continuity by observing and counseling retarded educable and trainable student workers during the summer months.

The current year's evaluation focused on the implementation of project services and students' progress.

The project's intended mode of operation was fully implemented. A total of 434 students were served in 35 classes for the emotionally disturbed, hearing-handicapped, retarded trainable, orthopedically handicapped, and visually handicapped participated in academic and vocational programs. With the exception of the vocational training workshops, enrichment activities were included in all programs.

All instructional programs successfully attained objectives for students to maintain or improve their skills. Progress reports indicated that at least 97% of the students in the project's instructional programs improved or maintained their levels in academic, social, and vocational skills, and in physiological therapy.

With the services of the citywide job coordinator, the objective of maintaining student employment throughout the summer was attained. Of 215 retarded educable and trainable students employed in June, 196 (88%) continued their employment throughout the summer.

TABLE 1

IMPLEMENTATION OF INSTRUCTIONAL PROGRAMS IN SUMMER SPECIAL EDUCATION

Instructional Program	Enroll-ment	Classes Opera-tional	Days Opera-tional	Hours per Day	Average Daily Attendance
Emotionally Disturbed	45	7	24	3	77%
Hearing-Handicapped	41	6	22	3 1/4	74%
Retarded Trainable	129	5	20	3	89%
Orthopedically Handicapped	174	12	16	5 3/4	74%
Visually Handicapped	45	5	16	--	87%
Total	434	35	--	--	--

TABLE 2

SUMMARY OF SUMMER-SPECIAL-EDUCATION TEACHERS' RATINGS OF STUDENT PROGRESS IN ACADEMIC SKILLS

Instructional Program	Reading				Mathematics			
	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed
Emotionally Disturbed	45	25	19	1	40	24	16	0
Hearing-Handicapped	41	22	19	0	41	20	19	2
Orthopedically Handicapped	109	15	94	0	102	7	95	0
Visually Handicapped	44	14	30	0	29	29	0	0
Total	239	76	162	1	212	80	130	2

TABLE 3

SUMMARY OF SUMMER-SPECIAL-EDUCATION TEACHERS' RATINGS OF STUDENT PROGRESS IN SOCIAL SKILLS

Instructional Program	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed
Emotionally Disturbed	45	28	15	2
Hearing-Handicapped	32	17	13	2
Retarded Trainable	129	41	88	0
Orthopedically Handicapped	137	25	111	1
Visually Handicapped	45	17	28	0
Total	388	128	255	5

TABLE 4

SUMMARY OF SUMMER-SPECIAL-EDUCATION TEACHERS' RATINGS OF STUDENT PROGRESS IN PHYSIOLOGICAL REHABILITATION

Type of Therapy	No. of Students Rated	Students Rated Improved	Students Rated Same	Students Rated Regressed
Physical Therapy	59	9	50	0
Occupational Therapy	24	4	19	1
Functional Therapy	8	2	6	0
Swimming	16	1	15	0
Perceptual-Motor Training	5	0	5	0
Total	112	16	95	1

WALNUT CENTER

Readers who are cognizant of this project's previous evaluations are invited to turn directly to the section of this report entitled EVALUATION OF THE CURRENT YEAR.

Walnut Center is an early childhood educational center which provides programs for preschool, kindergarten, and first-grade children and an after-school child-care and enrichment program for school-age children. The children are screened and selected to provide a mix of socioeconomic and ethnic characteristics.

RATIONALE

Walnut Center serves children and parents from a wide variety of ethnic and socioeconomic backgrounds. In this environment, the project addresses the community's need for a model school in which pupils' cognitive skills can be developed through discovery and experience and in which their physical, social, and emotional growth can be fostered. The center also serves as a child-care and enrichment center for school-age children who attend neighborhood schools.

EXPECTED OUTCOMES

It is expected that through the project's readiness experiences, preschool children will be well prepared for first grade. It is also expected that when the children are in first grade they will continue to develop physically, socially, and emotionally, and that basic reading, writing, mathematics, science, and social studies skills also will be developed. By the end of first grade, children are expected to reach levels of basic skill development which are equivalent to national norms.

MODE OF OPERATION

Walnut Center offers the community a primary school program and a child-care program. The primary school program provides services for two half-day preschool classes of three- and four-year-olds, two half-day kindergarten classes, and two first-grade classes, Monday through Friday during the regular school year.

The child-care program is organized to provide full-day care for one kindergarten and two prekindergarten classes. Two groups of school-age children attending other elementary schools come to WC before school, during lunch, and after school. Children enrolled in the child-care program receive meals, snacks, and a planned program of educational and recreational activities.

Through an individualized instructional approach, the staff is aware of each child's abilities. A program to foster muscular development, proper nutrition, and early detection and correction of health problems is coupled with class activities directed toward the development of social and emotional growth within a group situation. Exploration, discovery, experimentation, and reinforcement of experience in an open-classroom setting motivate each child to develop his abilities. Teachers use a wide range of methods, materials, and equipment to encourage and expand learning experiences. Trips to various cultural, environmental, and educational sites are a vital aspect of this eclectic approach.

Active project participation by parents, community volunteers, student teachers, and high school volunteers increases the classroom adult/pupil ratio and enhances individualized instruction. A parent/staff team (including the school nurse, social workers, secretaries, the custodian, teachers, and aides) helps to provide the analysis, planning, and program to foster the child's total growth.

Workshops keep the staff, community volunteers, parents, and pupils informed of current educational trends. Methods and procedures are constantly reevaluated. Staff meetings are used to evaluate the individual pupil's growth and development and to determine the best approach for helping each child to reach his potential.

PREVIOUS FINDINGS

Past evaluations indicated that WC's goals in both cognitive and social areas have consistently been achieved. In 1968-1969, WC pupils equaled or excelled nonparticipant peers on standardized tests of cognitive skill development.

In 1969-1970, it was found that many persons from the community, particularly parents, were actively involved in WC. A high degree of interaction was observed among pupils from different backgrounds. A follow-up of WC children showed that they were better able than nonparticipants to adjust to second-grade classes in their new schools.

In 1970-1971 it was found that WC pupils in both kindergarten and first grade scored above national reading and arithmetic averages on the Philadelphia Readiness Test and on Continuous Progress Primary (CPP) criterion measures. In almost all cases, upper socioeconomic WC pupils scored higher than their lower socioeconomic WC peers. However, the lower socioeconomic WC pupils tended to obtain academic ratings higher than those for the city as a whole. Attitudes of WC pupils toward school were quite positive, regardless of pupils' socioeconomic backgrounds.

In 1971-1972, WC pupils achieved the set criterion: by April 1972, 95% of WC first-grade pupils attained at least CPP Level 3 in reading; 91% did so in arithmetic; 85% did so in both areas. Also, 85% of the WC first-grade pupils achieved at least Level 4 in reading.

In 1973-1974, WC pupils' achievement on standardized tests exceeded the objectives set for both preschool children and first graders. The center continued to serve as an effective model of early childhood urban education.

In 1974-1975, WC pupils' achievement on standardized tests again exceeded the objectives set for both kindergarten and first-grade children. A complete medical and social service program was provided for WC pupils. Teachers continued to plan many enrichment activities and trips. Ongoing parent participation in supportive roles was observed throughout the school.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of the Walnut Center project was based on observations, informal interviews, and pupil scores on nationally normed achievement tests.

IMPLEMENTATION

During the 1975-1976 school year, the intended mode of operation for Walnut Center (WC) was fully implemented.

The center continued to provide primary school program services for two half-day preschool classes of three- and four-year-olds, two half-day kindergarten classes, and two first-grade classes during the regular school year. The child-care program was organized to provide full-day care for kindergarten and two pre-kindergarten classes. Two groups of school-age children attending other elementary schools came to WC before school, during lunch, and after school. Children enrolled in the child-care program received breakfast, lunch, and snacks prepared at the center and a planned program of educational and recreational activities.

The evaluator, using a formal observational checklist, made a total of 22 visits to classrooms, in October, February, and May. All observed classrooms were organized into large and small spaces equipped to varying degrees with academic and interest-area materials.

The adult:pupil ratio remained high due to the number of aides, student interns, and parent volunteers. Bus and walking trips were an integral part of the instructional program. Walking trips were made to stores, museums, Children's Hospital, parks, and homes near the center. Bus trips were made to 31 locations including historical sites in Philadelphia, farms, an orchard, a heliport, and nature centers. Train and boat rides added another dimension to the experiences. Follow-up classroom activities were carefully planned for reinforcement.

In the two first-grade classrooms a very structured program, emphasizing reading and mathematics, was observed. Written work sheets were used to reinforce skills. Teachers used both small-group and whole-class modes of instruction. At the end of the school year, the first-grade teachers opened the parition between their classrooms in an effort to create a more open-classroom atmosphere.

Preschool and kindergarten classes were taught in the open-classroom mode, with instruction most often given to small groups and individuals. Widely varied materials were observed being used to teach reading readiness, mathematics skills, art, science, and social science. The evaluation team observed unusual materials such as a barometer, pipe fittings for building, sand and water tables outfitted with a variety of measuring containers, workbenches complete with wood scraps and real tools, a typewriter and radio the children could take apart and explore, and a telephone system that worked. Teachers and children worked together to create many classroom exhibits including plants, animals, nature collections, and displays of children's work.

The project staff maintained awareness of pupil needs and growth with the aid of a social service person, a psychiatrist, a psychologist, the school nurse, and a part-time speech therapist. The entire staff, including nonteaching personnel, participated in meetings to plan the best approach for pupils' growth and development.

Walnut Center has been a racially and socioeconomically integrated school in past years. During the 1975-1976 school year, the racial mix included 74.2% black, 0.6% Oriental, and 25.2% other backgrounds. In both the prekindergarten and kindergarten, the racial mix approximated 60% black and 40% white, a balance similar to that of previous years. However, first-grade records in 1975-1976 showed 86% black and 14% white enrollment.

ATTAINMENT OF OBJECTIVES

Objective 1: Participating kindergarten children will develop readiness skills in reading and arithmetic to the extent that 50% of them will score at or above the 50th percentile on the Stanford Early School Achievement Test (SESAT) administered in February.

This objective was fully attained.

The Stanford Early School Achievement Test was administered in February 1976 to all kindergarten pupils in the School District as part of the citywide testing program. The tests were scored by machine and the results forwarded to each school in the spring.

Results for the three kindergarten classes at the center revealed that 93% of these 59 pupils had total scores at or above the 50th percentile. On each of the reading and mathematics subtests, at least 88% of the pupils scored at or above the national median (92% in Letters and Sounds, 88% in Aural Comprehension, and 93% in Mathematics). The distribution of their scores is summarized in Table 1.

Objective 2: Participating first-grade children will develop basic skills in reading and arithmetic to the extent that 50% of them will score at or above the 50th percentile on the California Achievement Tests (CAT-70) administered in February.

This objective was fully attained.

The California Achievement Tests (CAT-70) were administered in February 1976 to all first-grade pupils in the School District as part of the citywide testing program. The tests were scored by machine and the results forwarded to each school in the spring.

Results for the two first grades at the center revealed that 95% of the 46 pupils had Total Reading scores at or above the national median; 98% had Total Mathematics scores at or above the national median. Reading results are summarized in Table 2; mathematics results in Table 3.

Objective 3: The center will provide medical, psychological, psychiatric, speech, and social service professional care to all participating pupils on an "as needed" basis, as indicated by school records and observations by the evaluation team.

This objective was fully attained. The center provided a complete program that attended to the medical and psychological needs of the pupils.

The full-time nurse organized the public health immunization program; talked to parents and faculty; performed audiometric, growth, and vision screening; made dental and speech referrals; and maintained complete records and a first-aid program. In addition, she coordinated and assisted the doctor with monthly visits and the physical examinations of all child-care and newly-admitted public school pupils.

The services of a psychiatric consultant were available through January. A psychologist performed placement screening and worked with teachers on classroom management of specific children with adjustment problems. The social service person spent alternating weeks at the center making observations, conducting parent conferences, and making appropriate referrals. The part-time services of a speech therapist were also available.

SUMMARY AND CONCLUSIONS

Walnut Center was fully implemented, and effectively provided a high-impact program for preschool and first-grade pupils. The preschool program maintained the racial balance that had become an integral feature of the project; this balance seemed not to exist in first grade.

As evidenced by SESAT and CAT scores, the center attained its academic objectives by developing reading skills, reading-readiness skills for kindergarten pupils, and mathematics skills for both kindergarten and first-grade pupils.

The center's social-service objective was also attained. There were excellent programs of speech therapy, medical, social service, and mental health care. Parent involvement (an integral part of the center's operation), combined with student intern and aide service, helped provide a high adult:pupil ratio in classrooms. Exploratory walks in the neighborhood and trips to exhibits, historical Philadelphia, nature centers, farms, and museums expanded the pupils' experiences from the classroom into the "real world."

The project represented a viable, proven model of early childhood urban education. Its pupils have achieved at a level superior to national norms and have received a breadth of experiences in a setting which they otherwise would not have encountered.

TABLE 1

WALNUT CENTER KINDERGARTEN PUPILS WITH SESAT SCORES IN VARIOUS NATIONAL PERCENTILE RANGES (N=59)

National Percentile Range	Letters and Sounds	Aural Compre-hension	Mathe-matics	Total* Battery
Above 84th	40(68%)	32(54%)	35(59%)	40(68%)
50th-84th	14(24%)	20(34%)	20(34%)	15(25%)
16th-49th	4(7%)	5(9%)	2(3%)	2(3%)
Below 16th	1(1%)	2(3%)	2(3%)	2(3%)

*Includes Environmental subtest.

TABLE 2

WALNUT CENTER FIRST-GRADE PUPILS WITH CAT READING SCORES IN VARIOUS NATIONAL PERCENTILE RANGES (N=46)

National Percentile Range	Vocabulary	Comprehension	Total Reading
Above 84th	40(87%)	39(85%)	42(91%)
50th-84th	5(11%)	5(11%)	2(4%)
16th-49th	1(2%)	2(4%)	2(5%)
Below 16th	0(0%)	0(0%)	0(0%)

TABLE 3

WALNUT CENTER FIRST-GRADE PUPILS WITH CAT MATHEMATICS SCORES IN VARIOUS NATIONAL PERCENTILE RANGES (N=46)

National Percentile Range	Computation	Concepts/Problems	Total Mathematics
Above 84th	36 (78%)	38 (83%)	41 (89%)
50th-84th	9 (20%)	7 (15%)	4 (9%)
16th-49th	1 (2%)	1 (2%)	1 (2%)
Below 16th	0 (0%)	0 (0%)	0 (0%)

YOUNG AUDIENCES

The Young Audiences project presents a series of programs by professional vocal, instrumental, and dance ensembles to Title-I-eligible pupils in elementary schools.

RATIONALE

Title I children have been found deficient not only in attainment of basic skills but also in cultural development. Prior experience has shown the benefit of live musical performances that involve and stimulate children. Rather than just one program for a brief exposure, the project offers a series of performances planned to complement one another in presenting new ideas, concepts, and vocabulary related to music. The impact of the presentations is intensified by restricting the audience size to two classes. Instead of using only the written word to teach, Young Audiences employs sound, action, and excitement to broaden the pupils' interests, understandings, and appreciations of their cultural environment.

EXPECTED OUTCOMES

Participating pupils are expected to increase their knowledge of musical instruments and concepts, and their appreciation of music. Gains in knowledge of vocabulary and quantitative relationships also are anticipated.

MODE OF OPERATION

The project is designed to provide classroom programs to Title I pupils in Grade 3 and above in public and nonpublic elementary schools.

A minimum of 50 pupils (two classes) attend each of the six correlated presentations by professional vocal, instrumental, and dance ensembles. Each ensemble is chosen and trained in Young Audiences techniques by project advisers and directors. Each presentation is planned to reinforce the previous presentation and add new knowledge.

Prior to the series of performances, the Young Audiences staff visits the school and provides an orientation to the principal, the classroom teacher, the music teacher, and the librarian. A guide to the six performances outlines the presentations and includes vocabulary and ideas for classroom use as introductory or follow-up activities. Interaction between the performing artists and children is encouraged.

PREVIOUS FINDINGS

In 1974-1975, the project's first year of operation, all children who were interviewed liked their 45-minute program, and most of those who expressed a special interest in the content and format felt they were more knowledgeable through exposure to it.

Teachers felt that Young Audiences provided exposure to cultural experiences, presented information necessary for the comprehension of a variety of musical styles, and motivated children to take an interest in various phases of music education.

EVALUATION OF THE CURRENT YEAR

The current year's evaluation of Young Audiences was based on observations, interviews, and questionnaires involving principals and participating teachers, and comparison of participating pupils' pretest and posttest scores on a locally developed test of project-related knowledge.

IMPLEMENTATION

In 1975-1976, the project's intended mode of operation was fully implemented.

Using an observational checklist, the evaluation team conducted eight randomly-selected program observations in 6 of 12 participating elementary schools. Two retarded educable secondary schools were also included in the program.

The level of presentation matched the level of pupils' comprehension to a considerable degree during all observations. At each observed program, children were interested, understood the presentations, and were being actively involved with the lessons. Pupils were attentive, enthusiastic, and cooperative with the ensemble instructors. However, children were not given the opportunity to ask questions at the conclusion of all performances.

A teacher accompanied each group of children to the lessons. Other school staff and teachers, with no classes at the time of the scheduled presentation, also attended some of the programs.

It was difficult to determine to what extent these pupils were given pre-presentation activities.

ATTAINMENT OF OBJECTIVES

Objective 1: The project will provide a total of 135 classroom programs to ESEA Title I pupils in public and nonpublic schools with a minimum of 50 pupils attending each presentation. Pupils in Grades 3-8 will receive six correlated and inter-related presentations by ensembles of guest performers, each program reinforcing and adding new knowledge and information to the previous presentation.

This objective was considered attained.

The determination was made from observations of programs using an observational checklist and information from project records. Increased personnel costs for musicians made it possible to provide only 132 classroom programs instead of the 135 that were planned. Pupils from Grades 3-8 in public and nonpublic schools were provided six correlated and interrelated musical programs by ensembles of guest performers. At least 50 Title-I-eligible pupils attended each of the programs planned to reinforce or introduce new knowledge to the previous presentation. However, the amount of information reviewed from previous presentations varied in degree.

Objective 2: Perceptions of program impact will be determined by the responses to the Young Audiences Staff Questionnaire completed by principals and participating teachers. Eighty percent of those polled will indicate satisfaction with the program.

This objective was fully attained.

The End-of-Program Young Audience Staff Questionnaire developed by the evaluation team was distributed at the conclusion of the series to principals and participating teachers who attended the performances.

All 50 respondents (47 teachers and 3 principals) to the questionnaire wanted to have the Young Audiences program return to their class or school next year. Of these, forty-eight (96%) indicated that the overall quality of performances in terms of musical content or knowledge was either "high" or "very high." Forty-five of the respondents (90%) indicated that pupils maintained a high interest level during the six performances.

Objective 3: Between pretests and posttests, participating pupils will significantly ($p<.10$) increase their knowledge of vocabulary, concepts of music, and quantitative relationships as measured by the Young Audiences Assessment Form.

This objective was fully attained.

As a pretest, the evaluators used the locally-developed Young Audiences Assessment Form. A rearrangement of the pretest items was done for the posttest. The pretests were administered to the pupils by their teachers before they were scheduled to participate in the program series. Teachers administered the posttests at least a week after the sixth presentation.

On the 25-item Young Audiences Assessment Form, the mean scores for a sample of 285 participating pupils, for whom both scores were available, were 12.7 on the pretest and 16.2 on the posttest. The gain of 3.5 points was statistically significant at the .10 level, and indicated that participating pupils had indeed increased their knowledge of vocabulary, musical concepts, and quantitative relationships.

SUMMARY AND CONCLUSIONS

The Young Audiences project was designed to provide musical programs by which children are not only motivated to learn, but are also given instruction involving vocabulary development, musical concepts, and quantitative relationships.

The project's intended mode of operation was fully implemented. Six correlated musical classroom programs were presented to a minimum of 50 Title-I-eligible pupils in 12 schools. The children were very receptive to the program.

All of the project's objectives were attained. Ninety-six percent of the principals and staff were satisfied with the overall quality of the performances. They also indicated that the children maintained a high level of interest during the six presentations. Children increased their overall knowledge of music as a result of receiving the presentations.

APPENDIX

PROJECT ADMINISTRATORS AND EVALUATORS

PROJECT ADMINISTRATORS AND EVALUATORS*

Evaluation Team	Project	Administrator
Team Leader: Thomas Clark		
Thomas Clark	Computer-Managed Instruction	Sylvia Charp
Ethel K. Goldberg	Learning Centers	Lore Rasmussen
William Haggett	Primary Reading Skills Center	Charles McLaughlin
Ethel K. Goldberg	Out-of-School Sequenced Science Experiences	Fred Hofkin
Joseph Meade, William F. Haggett*	Language Arts Reading Camps	Marjorie Farmer
William F. Haggett	Multimedia Center	Charles McLaughlin
Team Leader: Arnold Escourt		
Arnold Escourt	Benchmark	Edmund J. Forte
Arnold Escourt	Improvement of Reading Skills "A" and "B"	Marjorie Farmer
Carrolyn Iwamoto	Comprehensive Mathematics	Alexander Tobin
Fleta B. Waters	AIDE Services	Leontine Scott, Frances Becker, Charles McLaughlin
Fleta B. Waters	School Community Coordinators	George Green
Fleta B. Waters	Young Audiences	Edwin Heilakka

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Joseph Meade	Motivation	Rebecca Segal
Team Leader: Marion Kaplan		
Marion Kaplan, Larry Aniloff* Camilla Grigsby	Bilingual Education	Charles McLaughlin
Marion Kaplan, Larry Aniloff Camilla Grigsby*	Reading Improvement through Teacher Education	Charles McLaughlin
Marion Kaplan, Larry Aniloff Camilla Grigsby*	English as a Second Language--Readiness	Charles McLaughlin
Marion Kaplan, Larry Aniloff	Improvement of Reading Skills "C"	Chalres McLaughlin
Marion Kaplan, Larry Aniloff Camilla Grigsby*	Primary Reading Skills Centers	Charles McLaughlin
Marion Kaplan, Larry Aniloff Camilla Grigsby*	Operation Individual	Chalres McLaughlin
Marion Kaplan, Larry Aniloff	Summer Special Education	Marechal-Neil E. Young

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Marion Kaplan , Larry Aniloff, Camilla Grigsby	Counseling Services	Albert Bell
Team Leader: William Loue		
William Loue, Judith Green Leibovitz*	Creative Dramatics	Harriet Ehrlich
William Loue	Summer Reading Readiness	Charles McLaughlin
William Loue	Individualized Education Center	Charles McLaughlin
William Loue, Lisbeth R. Sklar*	Education in World Affairs	Margaret Lonzetta
William Loue	Speech and Hearing	Charles McLaughlin
Judith Green Leibovitz	Institutions for Neglected and Delinquent Children	Lurlene Sweeting
William Loue, Judith Green Leibovitz	Affective Education	Norman Newberg
William Loue, Lisbeth R. Sklar*	Walnut Center	Frances Becker

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Thomas McNamara, Judith Goodwin, Anne Lukshus, Janice Atkins, James Welsh	Follow Through (ESEA Title 1 Component)	Leontine Scott
Team Leader: Robert Offenberg Robert Offenberg, Bob Epstein, Carlos Rodriguez-Acosta	English to Speakers of Other Languages	Eleanor Sandstrom
Team Leader: Louis Scheiner Louis Scheiner	Intensive Reading For Secondary Students	Philip Pitis

PROJECT ADMINISTRATORS AND EVALUATORS (Continued)

Evaluation Team	Project	Administrator
Roger J. Fishman, Joseph Wroblewski	Alternative Programs	Lorraine Brown
Joseph Gavin	District 6 Reading	Norman Kline
Sharon Rose, Judith Zernik	District 1 Reading	Verneta Harvey
Sharon Rose, Nicholas Rongione	District 4 Reading	Katherine C. Jackson
James Scheib, James Comerford	District 2 Reading	Michael Iannelli
James Scheib, Brenda Cohen	District 3 Reading	Arthur N. Romanelli
Alan Solomon, Jay Rosemoff	District 5 Reading	Irving Rosen
Alan Solomon	District 7 Reading	Reeda Kravinsky

*Projects generally were assigned to evaluation teams under the leadership of research associates. An asterisk following a person's name indicates that major responsibility within the team was assigned to that person.